COMMENCED IN 1881.

tep after step the ladder is ascended."—George Herbert, *Jacula Prudentum.*

THE TROPICAL AGRICULTURIST:

A MONTHLY RECORD OF INFORMATION FOR PLANTERS

OF

TEA, CACAO, COFFEE, PALMS, RUBBER, CINCHONA, SUGAR, COTTON, TOBACCO, SPICES, CAMPHOR, RICE,

AND OTHER PRODUCTS SUITED FOR CULTIVATION IN THE TROPICS.

EDITED BY

J. FERGUSON,

of the "Ceylon Observer," "Ceylon Handbook and Directory," &c.

"It is both the duty and interest of every owner and cultivator of the soil to study the best means of rendering that soil subservient to his own and the general wants of the community; and he who introduces, beneficially, a new and useful *Seed*, *Plant* or *Shrub* into his district, is a blessing and an honour to his country."—Sir J. Sinclair.

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A. M. & J. FERGUSON.

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MDCCCXCVII.

TO OUR READERS.

In closing the Sixteenth Volume of the "Tropical Agriculturist," we would as usual direct attention to the large amount of useful information afforded and to the great variety of topics treated in the several numbers. From month to month, we have endeavoured to embody in these pages the latest results of practical experience and scientific teaching in all that concerns tropical agriculture; and our ambition has been to make our periodical not only indispensable to the planter, but of service to business men and capitalists, never forgetting that agriculture trenches upon every department of human knowledge, besides being the basis of personal and communal wealth.

While directing our attention chiefly to the products prominently mentioned on our title-page, we have always taken care to notice minor industries likely to fit in with sub-tropical conditions: and our readers have an ample guarantee in the index pages before them, that, in the future, no pains will be spared to bring together all available information both from the West and East, the same being examined in the light of the teachings of common sense as well as of prolonged tropical experience in this, the leading Crown and Planting Colony of the British Empire.

Special attention has, during the past year, been given to the extension of the fibre industry (rhea, sisal, &c.); rubber; cacao in Guiana and the West Indies as in Ceylon; coffee and other products in Nyassaland, British Central Africa; Liberian coffee and other products in Sumatra, Java, the Straits Settlements; and to other new developments in coffee, coconuts and tobacco planting, &c., in the Malayan Peninsula and North Borneo.

The Tea-planting Industry has sprung into so much importance in India (South as well as North) and Ceylon, as also in Java, that a considerable amount of space is naturally given to this great staple; and we think it will be admitted by impartial judges that the *Tropical Agriculturist* should be filed, for the convenience of planters, in every Tea Factory in this Island, in India and in Java.

A full and accurate Index affords the means of ready reference to every subject treated in this, the sixteenth volume, which we now place in our subscribers' hands, in the full confidence that it will be received with an amount of approval, at least equal to that which has been so kindly extended to its predecessors.

To show how fully other Products besides Tea are treated in this volume we may mention the number of entries under several headings as follows:—Coffee (including Liberian) 86; Cacaó 16; Indiarubber 26; Coconuts and other Palms 20; and Miscellaneous Products nearly 1,000. In the 16 Volumes, the references to Coffee, Rubber, and Cacao number many thousands, as also to Coconuts and other Palms.

We are convinced that no more suitable or useful gift can be made to the tropical planter or agriculturist, whether he be about to enter on his career, or with many years of experience behind him, than the sixteen volumes of our periodical which we have now made available. They are full of information bearing on every department and relating to nearly every product within the scope of sub-tropical industries.

In conclusion, we have to tender our thanks to readers and contributors, and our wish that all friends may continue to write instructively and to read with approval; for then, indeed, must the "Tropical Agriculturist" continue to do well.

J. FERGUSON.

COLOMBO, CEYLON; 1ST JULY 1897.

THE

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(MONTHLY.)

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Among the PLANTING PIONEERS whose portraits with biographical notices are likely to appear in this new Volume are, besides, Mr. S. BUTLER in July, Messrs. R. BEAUCHAMP DOWNALL, W. MARTIN LEAKE, ALEXANDER HARPER, Messrs. F and C. S. HADDEN, WM. WALKER, F. R. and W. SABONADIERE, &c.

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I am, Sirs,

Yours faithfully,

....

To Messrs A. M. & J. FERGUSON,

"CEYLON OBSERVER" OFFICE,

COLOMBO, CEYLON.

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Covers for binding the Sixteenth Volume, July 1896 to June 1897 (890) pages can be obtained for R1·50. Cost of binding and cover R2·50.

WHAT IS THOUGHT OF

THE "TROPICAL AGRICULTURIST."

A gentleman resident in the Central Province, who has as good opportunities of knowing what is of benefit to Planters as anyone we know, sent us the following explicit testimony to the value of the "*T.A.*":—

"Since its commencement, I have regularly seen and perused the *Tropical Agriculturist*. There can be but one opinion that its scope and object are highly important, and that it supplies a distinct desideratum, which it is to the interest of every estate proprietor to have available in the bungalow for the use of his *locum tenens*, or superintendent. As a magazine it provides varied and instructive fresh literature at intervals; deprived, as most in Ceylon are, of easy access to libraries; and as years go by it will growingly become 'The Ceylon Encyclopædia' with reference to agricultural operations. Viewing estate property as practically a permanent investment to any proprietor, the trifling charge of R12 per annum—a rupee a month—is certainly of no account, provided the separate numbers are kept, and bound together yearly as a book of reference, for the benefit of the manager and his successors. In that light, as the property of an estate to be handed over just as much as its office furniture, few proprietors would probably refuse to authorise its being taken and filed regularly (if the periodical was brought under their notice), more especially as on looking over the most recent volume one cannot fail to see how much valuable information on 'Tea' has been collated. In the belief that 'Tea' has restored prosperity to Ceylon, and that plantation property is a good investment for capitalists, such should not omit the office and connected equipment so advisable on all 'pucka' estates, a part of which should be the *Tropical Agriculturist*. I find I have gone on writing, but, as I am getting the numbers for the past year ready to be bound, the volume is before me."

Mr. W. T. Thistleton Dyer, F.L.S., C.M.G., of Kew Gardens:—"Sir Joseph Hooker and myself always look out for the successive numbers of the *T.A.* with eagerness, and I keep a file in my office for reference. It is impossible to speak too highly of the utility of such a publication and of the way it is managed."

Dr. King, of the Calcutta Government Museum:—"I know your *Tropical Agriculturist* well, having carefully secured every number since the beginning. You have succeeded in making it a wonderfully useful magazine of information for planters."

Surgeon-Major Bidie, F.L.S., of the Government Central Museum, Madras:—"I find the *Tropical Agriculturist* a most interesting and useful publication. It finds a place on the table of our Public Library, and is much prized."

THE VALUE OF THE "*T.A.*" TO CEYLON ESTATE OWNERS.—A planting correspondent wrote some time ago:—"I think proprietors should supply every tea estate with the *T.A.* The information in it with regard to everything in connection with tea &c. is invaluable: it would pay its value over and over again. Owners of estates should not leave it to hard-up superintendents to take it in."

A Correspondent writes:—"I venture to say the volumes of the *Tropical Agriculturist* will be at a premium a few years hence: it is a book which is bound to rise in value as time rolls, on, and subscribers will probably, if they so choose, be able to sell at a handsome profit, besides having had the benefit of using the information in the meantime!"

From a Proprietor:—"I wonder how many planters know what they lose in not subscribing to your wonderful publication? The cost is absolutely nothing, compared to the convenience of having in a bound book all that is interesting and necessary in the literature of their calling. Information culled from a thousand sources, price lists of all produce sold locally, and home advertisements not seen elsewhere, and a hundred other things necessary for them to see and to know. The *T.A.* is, in fact, a convenient file of useful information daily arising and permanently preserved."

The TROPICAL AGRICULTURIST

MONTHLY.

Vol. XVI.] COLOMBO, July 1st, 1896. [No. 1.

CEYLON AND ITS RESOURCES.

THE COLONY'S CENTENARY.

INTERVIEW WITH MR. J. L. SHAND.

[By Our Special Commissioner.]

WHO that has read up the history of the British Empire or has travelled round the world has not fallen in love with Ceylon—the "pendent jewel of India"—the "gem of the Indian Ocean," with its varied climate, its luxurious vegetation, its tropical products, its grand scenery, and its interesting native population? Its very antiquity makes it exceptionally interesting to the student of literature. The great Indian epic, "The Râmâyana," has a chapter describing Ceylon at least ten centuries before the Christan era, but the authentic history of the island begins at the fifth century B.C., when an Aryan invasion from the valley of the Ganges established the Sinhalese dynasty. Visited in the early days by the Greeks, Romans, and Venetians, the Portuguese formed settlements on the west and south of the island in 1505, but in the next century they were dispossessed by the Dutch. A hundred years ago last Monday—February 17—Ceylon passed under the authority and protection of the British Crown, and no doubt the centenary of this interesting colony was suitably celebrated in Colombo under the ægis of its new Governor, Sir West Ridgeway, K. C. B., K. C. S. I., who left London last month to take up his gubernotorial duties. Prior to his departure he was entertained at a banquet by the Ceylon Association in London, and but for this recent dinner the planting, mercantile, and shipping interest connected with the colony would have celebrated the centenary in the customary manner by meeting together round the festive board.

HOW STANDS CEYLON TO-DAY?

This was the question that occurred to me on Monday, and I felt that I could not do better than call upon Mr. John Loudoun Shand, late Member of the Legislative Council, who has lived in the colony for twenty years. He has been a tea-planter, has had the management of large estates, and was the chairman of the local Planters' Association. On his return to England to take up his residence here he helped to found the Ceylon Association in London, and is now the senior partner of the firm of Shand, Haldane & Co., of Rood-lane.

I was fortunate in finding both partners in. Having explained the object of my visit, Mr. Haldane said, "Ah, tea is now our great staple in Ceylon. Twenty-one years ago I exported 20 lb., which was a tenth of the whole production of the colony. Last year the total exports amounted to 97,000,000 lb."

"Yes, I know tea has made wonderful strides. But first let me know something about

THE CEYLON ASSOCIATION IN LONDON."

"Well," replied Mr. Shand, "that is an association without a constitution. We felt that some organisation was needed on this side to watch over the interests of the colony, and to advance the same in this country. The association has for its president Lord Stanmore, better known, perhaps, as Sir Arthur Gordon, a former Governor of Ceylon, and is composed of merchants and shippers who are interested in the colony, exofficials of the Colonial Government, and planters. The members of the Chamber of Commerce in Colombo and of the Planters' Association are also members of an association while at home."

"And you watch over the interests of the colony generally?"

"Yes, the general body has interested itself lately in the question of the military expenditure, and then we have a special tea committee, which comes together pretty often. Before we started we had no separate days of sale for Ceylon teas; they were sold as Indian teas, and we had to break down several trade barriers. Everything is now overshadowed by tea, as it formerly was by coffee."

OPENINGS FOR BRITISH CAPITAL.

"The one great object of these interviews, Mr. Shand—and I should explain that this is only one of a series—is to make City people acquainted with the vast resources of our colonies, and the opportunities they offer for the introduction and profitable employment of British capital."

"There has been a great deal of capital sent into Ceylon during the last ten years, and up to the present it has all been most advantageously invested. But the area of land suitable for tea-planting—and bear in mind that this is now our chief industry—is limited. We have over 300,000 acres planted now, giving employment to nearly 2,000 British managers and superintendents, and about half a million British subjects from India and Ceylon, and the probabilities are, that this acreage will not be very much increased. Of course, the tendency of things in Ceylon, as it was in India, has been very much to turn estates into companies. When coffee cultivation was at its height there were only two or three London companies, but in the case of tea it has been found desirable to join two or three estates together and form them into public companies."

"And I see by an article in the *Financial News* of to-day, quoted from the *Times of Ceylon*, that they are all doing well, and that the price of the shares has risen in value during the past year from 18 per cent. up to 86 per cent."

"Yes they are all doing well, as you say; in fact, there has been an all-round rise. And yet, when we started to grow tea, every conceivable difficulty was raised. "The soil is not good enough.' 'You may grow tea, but you will never make it in sufficient quantity to make it pay.' 'You may get quantity but you will never get quality.' 'It may go on for years, but it won't last.' These were but a few of the expressions of doubt hurled freely and without foundation at tea-planting in Ceylon, but it has lived them down. The yield from many of the older gardens has far exceeded the most sanguine expectations, the average price obtained has exceeded that of other tea-producing countries; the older tea fields—and it must be remembered that they were formed on land not selected for its suitability for tea but for its unsuitability for coffee, some of which are now thirty-years old—are giving a steadily increasing yield, maintaining quality and showing no, signs of exhaustion. But wait, while I just copy down for you a few figures showing the

TOTAL EXPORTS OF CEYLON TEA

during the past twelve years:—

Year ending	December,	'85,	4,100,000 lb.
,,	,,	'86,	8,100,000 ,,
,,	,,	'87,	13,800,000 ,,
,,	,,	'88,	24,300,000 ,,
Year ending	December,	'89,	34,000,000 ,,
,,	,,	'90,	46,900,000 ,,
,,	,,	'91,	68,200,000 ,,
,,	,,	'92,	71,100,000 ,,
,,	,,	'93,	84,400,000 ,,
,,	,,	'94,	84,500,000 ,,
,,	,,	'95,	97,800,000 ,,
	Estimate	'96,	101,000,000 ,,

"Certainly a most remarkable and wonderful progress, Mr. Shand?"

"I think so, too. In a paper I read before the Royal Colonial Institute in 1888 I stated that the probable export of tea in 1890 would be 40,000,000 lb. It exceeded that by over 6,000,000 lb., and the late Sir John Coode, in the course of the discussion that followed, ventured to predict that it would reach 100,000,000 lb. by the end of the century. It has topped that already."

"And as regards the price?"

"Well, here is a table which my partner, Mr. Haldane, has drawn up, showing the average value of Ceylon tea sold in London from 1889 to 1895. In the first place there has been a steady increase in the quantity sold from 440,161 packages in 1889 to 970,269 lb. last year. In 1889, you will observe, the average price per lb. was 11d.; in 1890, 10¾d.; in 1891, 10d.; in 1892, 9½d.; in 1893, 9d., in 1894, 8½d.; and in 1895, 8¾d.; so that there has been a steady decline until last year, when there was a slight rise. But you must remember that whereas the average value of the rupee in 1889 was 1s. 4½d.; last year it was only 1s. 1⅝d.; so that the planters are quite as well off with the lower price as with the higher, so long as they and theirs remain in the land of rupees, and do not require to convert rupee into sovereigns.

"But there must be a price, of course, at which it would not pay to grow tea?"

"Undoubtedly. But we have two good things in our favour, good labour and good transport, and most of the Indian tea-growing districts would have to give way first. Our labour on the estates is almost entirely imported from Southern India. We give them a small advance, which we recover from them."

"Over and beyond tea there are

OTHER PRODUCTS.

What can I say about these?"

"When coffee failed us we ransacked the world of tropical agriculture for substitutes, and among other things we grew cinchona so successfully as to bring the price of quinine down to about a tenth of what it had been. Ceylon is capable of producing an almost unlimited quantity of cinchona bark, but at present prices it connot be grown profitably. All the same, it was the sheet anchor which enabled us to ride out the financial storm, and to regain prosperity."

"And what about coffee?"

"I think we may see a good deal of Liberian coffee coming from Ceylon in the near future. As you know, our coffee failed through a fungus. Then we introduced Liberian coffee, and cultivated it on a considerable scale. Since those days the trade has come to appreciate this Liberian coffee, and if we had known as much about it in the old days as we know now we should have seen a much larger area under cultivation."

"And as to cocoa?"

"We have been exporting a great deal of cocoa, and have got for many years an excellent price for it, but there has been a heavy fall in values during the past two years, on account of the enormous supplies coming forward from South America, and as the area of cocoa land is limited— it requires a very good soil and exemption from wind, two things which do not go well together in Ceylon —I do not expect to see a very great increase in the production."

"What about sugar?"

"Sugar cultivation was tried many years ago, but our rainfall is the great drawback to the growth of the cane. There is never a certainty of dry weather, and as sugar-growing was not a success when it had not Continental bounties to compete against, it is not likely to be a success now."

"Then there are your coconuts?"

"Yes, a very large area is under coconut cultivation. Hitherto the industry has been almost entirely in the hands of the natives, but recently European planters have taken it up. New markets are opening up constantly, and the demand increases. In addition to coconuts we have spices of various kinds—cinnamon, pepper, cardamons, and such like, but they are all minor industries."

"And how stands

THE FINANCIAL POSITION OF THE COLONY

to-day?"

"The financial position is very strong indeed. The only debt we have are sums that have been borrowed for public works, which will prove remunerative, and that debt is very small—only 2½ millions in fact. Our revenue is bounding up tremendously. It is now about 20 million rupees, and the expenditure, including interest on debt and sinking fund, is about the same. The Government is pursuing a spirited public works policy, and we have a network of railways all over the island."

CEYLON AT THE IMPERIAL INSTITUTE.

"By the way, Ceylon has a court at the Imperial Institute, has it not?"

"Yes; but I do not know that it is of any use The building is out of the way, and it seems difficult to combine business with pleasure. Then all the information one wants about the colony can be obtained without going to South Kensington for it. I have only been in the Institute twice in my life, and as far as serving any useful purpose it is, I fear, a failure."

"Then, generally, I may say that Ceylon is in a flourishing condition."

"It has never been so flourishing as it is today, and its prosperity—thanks to the tea industry—was never based on a firmer footing. Even in the good old days there was never the same division of prosperity as now—everybody, from the public bodies downwards, being distinctly better off."

"And there are still openings for the introduction of capital?"

"I am not quite sure Ceylon is the place I should invest money in. You must remember that the island is not like Australia or Canada, with a large territory to fall back upon. It is quite possible to attempt too much in Ceylon. We have had an enormous number of young men go out, younger sons of well-to-do people with a little capital. Some have done well, but the present is rather a time for big companies than small estate proprietors."

"What about the climate?"

"Of course we have got variable climates. You have it uncomfortably hot in the lowlands, but we have nothing like the African fevers, being on the high road to India and Australia. Ceylon is of course largely resorted to by visitors, who are very often so enchanted with the colony as to break their journey at Colombo and stay in the island until the arrival of the next steamer. There is a sort of open hospitality. Anyone taking out a letter of introduction to a well-known colonist or official is franked on and on, and in this way he makes a number of good acquaintances. There are something like 2,000 planters, largely recruited from England, Scotland, and Ireland, and their friends are often visiting them. Then it must be remembered that the conveniences of life on the island are vastly different to what they were thirty years ago. Yes, sir, Ceylon is flourishing, and long may it flourish."
—*Citizen.*

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Thea. Wett Streit der Chinesischen Thea mit dem warmen Wasser Calida, &c. [In verse.] Berlin. 1686. 8o.

Thea. The true qualities and effects of Thea [contra Masonem]. London. 1746. 8o.

Thee. Thee, Amalie, Immergrün. Eine Auswahl Märchen und Erzählungen für Kinder in Alten von 7-10 Jahren. Hannover. 1877-82. 8o.

Thee-Bezoek. Het Hedendaagse T. B. der Meyden en Knegts, &c. [Amsterdam. 1780?] 8o.

Thee-Kultuur. Theekultuur en Theerechten met Betrekking tot Nederlandsch-Indie. Batavia. 1876. 8o.

Thee-Pflanze. Die Theopflanze, Eine Abhandlung über die Cultur und Fabrikation des Thees, &c. Bremen. 1841-6. 8o.

Thee-Praatje. Theepraatje over het placet. Amsterdam. 1847. 8o.

Thee-Praatje. Theepraatje over het Amst. congres. Een vlugtige schets ter waardeering van den geest destijds. Amsterdam. 1864. 8o.

Thee-Tafel. Die Kleine medicinische Thee-tafel bericht von dem siebenfachen bewährtin Kräuter-Thee. Hamburg. 1732. 8o.

Thesendorff, Carol. Theod. Disputatio circularis Medica, de Tribus Impositoribus, Potu Theae et Coffe, &c. *Præs. Geo. Detharding.* 1731.

Thevart, Abr. [et *Cressé, P.*] Ergo confert curandae arthritidi The Sinensium. Parisiis. 1657. 4o.

Thezieke. De Thezieke Juffers. Amsterdam. 1701.

Thile, Joannes. See *Kirchmaier, C. C.* Theologia medica, &c. 1687. 4o. [Also Wittenbergae. 1690. 4o.]

THE TRADE IN VANILLA.

In the number of the *Journal* for March 27th, see *ante* p. 453, some facts were given on the condition of the quinine market and an incidental reference made to vanilla. In this connection it will probably be in the memory of many readers that the history and botany of the plants furnishing this useful product have recently been fully dealt with in the *Kew Bulletin*, and to the matter to be found therein the following extracts from the same number of the *Chemist and Druggist*, which contains the foregoing remarks on quinine, will be supplemental, and of value as completing the commercial side of the question. In consequence of the high price that vanilla always commands in the market, the crystalline principle has been imitated by a substance generally known as vanillin.

"When this substance was first introduced as a commercial article, now a good many years ago, the planters and others interested in the vanilla trade were much sacred at the new competition, but events have shown that their fears were unfounded, for although the use of vanillin may have prevented the consumption of vanilla from assuming such large proportions as it would otherwise have done, it has not in the least proved an obstacle to the profitable culture of the vanilla plant, and it is notorious that the employment of vanilla has greatly increased of late years. It is also noteworthy that vanillin is now lower in price than it has ever been, while fine vanilla realises higher figures than it has done for years. It seems, in fact, that in many instances the commercial preparation of a synthetic product, after creating a temporary depression in the market of the natural drug which it is intended to replace, finds a place side by side with the sale of that product, and remain thereafter comparatively powerless to affect the commercial position of the natural article. Cumarin and artificial musk are cases in point, in addition to vanillin.

"The future course of the vanilla market will be largely influenced by the receipts of Réunion (Bourbon) and Seychelles vanilla in the course of the next three months. When the first arrivals of the new vanilla crop came to hand in October, the stocks had fallen to a very low point everywhere; since then there has been but little chance of accumulation, owing to the strong demand, but at present the bulk of the crop is coming in, and it remains to be seen whether buyers will be able to absorb it with a rapidity approaching that with which it arrives. The principal stock of vanilla in Europe is usually kept in France, especially at Paris and Bordeaux, where the bulk of the Bourbon crop is received in consignment, and whence considerable quantities are habitually sent to London for sale. In September, just before the arrival of the new crop, a stock of from 15,000 to 20,000 kilos. in Bordeaux, and as big a one in Paris and Marseilles combined, used to be a fair average, but during the year the supplies in France did not by any means reach the lowest of these figures, while the London stock was below rather than above its usual scanty figure of about 2,000 lb. The crops of vanilla in Réunion, Mauritius, and the Seychelles have been unusually small, and it is said that the crop which is now beginning to arrive will again be a very poor one, while reports of total failure have come from Mexico for many weeks. As the United States require from 130,000 to 150,000 lb. of vanilla every year, they have been obliged for some time to purchase vanilla in Europe, and their orders have helped not a little to increase the competition and advance the market price of the drug. The American requirements are probably larger than those of the rest of the world together, and we do not estimate the total consumption of vanilla at much over 250,000 lb. a year, setting aside the Mexican production, and that from the smaller sources of supply. We cannot count upon an average output of about 160,000 lb. a year in Réunion, and of about 60,000 lb. a year in Mauritius and Seychelles. With an average crop, therefore, the present production of vanilla is ample, and if the exceptionally high prices of this year should lead to an extension of cultivation, we may be confronted with a large over-production within a very few years. For, although vanilla is very sensitive of climatic influences, the plant is easy of propagation, and yields a rapid return, as the vines begin to bear in their fifth year, and may continue to yield fruit until their fortieth.

"Fortunately for those who sell the article, it seems that comparatively few planters can grow it successfully. In Java, where vanilla was introduced in 1819, the culture was at one time of great importance, but at present the island scarcely counts as a producer. In Mauritius also, vanilla-growing seems to be dying out. The exports from that island fell from 37,600 lb. in 1892 to 15,400 lb. in 1893, and 9,100 lb. in 1894. Réunion exported her first vanilla to Europe in 1849. That shipment was only 7 lb. but in 1870 the exports had grown to over 20,000 lb, Since then the largest Réunion crops have been 190,000 lb, in 1891, 207,000 lb. in 1892, and 175,000 lb. in 1893, but last year there was a great decrease. The production of Seychelles has been exceedingly erratic lately. These islands first sent their produce to Europe in 1885. In the succeeding years they quickly rose to an output of about 80,000 lb., but equally thickly dropped off again to about 17,500 lb. a year. According to the latest reports, however, the output next year is likely to show a great increase. The Seychelles and Mauritius vanilla is generally shorter, paler, and fainter in odour than that from Réunion, and realises lower prices."—*Journal of the Society of Arts.*

LIBERIAN COFFEE.

In the *Selangor Journal* of 6th March there appears, reprinted from the *Journal of the American Colonization Society*, a very interesting article by a Mr. Johnson on Liberian Coffee. The information it gives is extremely valuable and will be found well worth studying by all interested in this product; but it is not so much what Mr. Johnson says that I wish to comment upon here, as the notes on the paper written by a Selangor planter.

To judge from these notes it would seem that coffee planters in Selangor have arrived—not without good reason no doubt—at conclusions directly opposite to those we have reached in North Borneo; we are quite with the writer when he states "nothing suits coffee over here better than a strong moisture-retaining soil," but when he goes on "For "this reason amongst others flat land is most sought "after and I imagine few planters would care to "plant up hills from choice," he makes it clear that the conditions in Selangor must be quite different from those in North Borneo, where we never plant on the flat and always ask for undulating land, not so hilly that much wash of soil is entailed but sufficiently so to let the rain run off with little or no cost for drainage. This is the lay of land we like best, but it cannot of course always be got in perfection.

The next statement of the writer's is, to say the least of it, rather appalling. "There are few estates "here on which cannot be found sturdy well-grown "trees florishing and cropping freely in places where "water may be found a foot or 18 inches down." And this on the flat too? All I can say is that in North Borneo ninety per cent of the trees would go out from root rot in a couple of years under similar conditions. Are our Selangor friends quite sure they are right?

A good deal of discussion has been proceeding in the Singapore papers as to some of the coffee lands in the Straits, not necessarily of course any of those referred to in the *Selangor Journal's* notes; during this discussion reference is made to the heavy percentage of "struck" plants (what is a "struck" plant?) while as to soil we are cheerfully given o e choice of all peat, half peat, land with water 18 inches below, blue clay, or sand. For myself I should decline to have anything to do with experiments as to whether coffee died sooner on "blue clay" or "peat."

On the question of topping, the *Selangor Journ* writer has a fairly open mind. I give his remarks in full.

"The process of topping is restored to in Li-"beria though we are not told at what height, the "objects being cheap gathering (the crop being "brought within the coolies' reach) and additional "spread, which of course means a larger plucking "surface, whilst the other advantage claimed for "wide-spreading trees is that they keep the grass "down more than those which are allowed to run up. 'We, however, weed our estates so regularly over "here that though the greater the spread the coffee "acquires the less is the cost of weeding, this fact "even combined with cheap harvesting would not be "considered a sufficient reason for topping our coffee. "There are many of us, however, who believe that "by cutting the heads off our trees, we not only "drive the strength of the treet outwards into the "primary and secondary crop-bearing branches in-"stead of letting it run off into "top," but by this "process also secure a sturdier, healthier and equ-"ally heavily cropping tree. As nevertheless opi-"nions are divided on this subject, somo planters "claiming that trees allowed to run up give larger "returns, it is important to note that nowhere does "Mr. Johnson, who would scarcely be likely to lose "sight of such a material point, make any allusion "to this whatever. By inference therefore the Li-"berian coffee tree in the habitat to which it is "indigenous yields no less when its growth is arti-'ficially cut short and directed in an unnatural 'direction. It appears to me perfectly clear, then, "that we can gain nothing in the way of increased ' returns by letting our coffee run up, whilst the dis-"advantages of this system, some of which have "been already noticed, are innumerable. The ques-"tion we now have to solve, is at what height to top."

This question of topping is a most important one, I have lately seen a lot of trees on two estates in North Borneo which were undoubtedly much damaged by being topped too low, but thero was still one point not clear: whether they had not been allowed too great a growth before being topped; however this may have been in a great many cases the trees almost died, and had not fully recovered their cropping power at the end of two years, while others, untopped growing close by were clothed with a luxuriant foliage and were heavy with fruit. Speaking for myself 7 feet is (now) the lowest height at which I would top while I am sure that trees should not be topped too far down when they have once grown up, always keeping in mind on the other hand that to top green wood stems is to kill the tree bark for a foot or 18 inches lower than the cut top.

In Mr. Lyall's half-yearly report on coffee in the Straits we read "coffee 2½ to 4½ years has parted hands at from "$300 to $600 per acre, and it is reported that $700 has been refused for some 5½ years old coffee." These figures are worthy of the utmost consideration by all interested in North Borneo. MYNAH.

—*British North Borneo Herald.*

THE TRADE OF JAVA.

BY M. QUILLET ST. ANGE.

Java's commercial situation did not improve appreciably during the last nine months of 1894. But the crisis became a little less acute on account of the gradual diminishing by sale of the stocks of sugar which had been lying in warehouse for over six months. The planters at last resigned themselves to selling part of their stock at cost price—about 7 fl. 50c. the picul in warehouse—as some of the banks were refusing further credit, and others were asking exorbitant rates of interest. On the other hand, the rainy season, which usually comes to an end in May, lasted in 1894 till July. The plantations suffered severely in consequence. On large areas of land, situated at some distance from the factories, the crops had to be totally abandoned, as the buffalo waggons could not be used, owing to the softness of the water-soaked earth. As the net result, the embarrassment caused by the plethora of 1893 will be succeeded by trouble due to the failure of the 1894 harvest. "Java" coffee production has rapidly decreased, having fallen, in a few years, from 1,100,000 to 370,000 piculs, and the situation is becoming worse and worse owing to the ravages caused by the *hemileia vastatrix*. The Government, which has been deeply affected thereby, is energetically pushing the cultivation of "Liberia" coffee, which has hitherto appeared proof against the disease, but it takes not less than five years for a plantation to produce a satisfactory crop

Among the smaller traders, the recoil of the misfortunes of the two great industries is necessarily felt, bankruptcies being pretty numerous. But the importance of these must not be exaggerated. The bankrupts are mostly Chinese and other Asiatics, whose commercial methods—due to excessive toleration—are so well-known to European merchants that not even the most confiding of them allows himself to be dragged into the smash which is the frequent epilogue of the Asiatics' adventurous speculations. Europeans are chiefly affected by the stagnation of trade which causes them material losses. Certain articles—and they are fairly numerous—must be sold quickly in this warm, damp climate. Such are provisions, preserves, silk stuffs, &c.; if kept in stock too long they are injured and have to be sold by auction. To make up for losses of this description, the retailer tries to make a profit of 70 to 100 per cent. on what he sells. French merchants, I am glad to say, have suffered less comparatively than those of any other nationality, through the crisis which has now lasted for over a year.

Perhaps their business would, however, be more prosperous, their orders placed in France better understood and executed, if there existed among them that union which assures everywhere the success of the Germans. French merchants, lacking information themselves, send incomplete instructions to their agents at home, consequently the orders are often badly executed, and the result is disputes, refusals of payment, etc., things which are all hurtful to credit, and to the progress of business. It is to be regretted that the French Colony is not large enough to study the possibility of creating a Chamber of Commerce. I think, however, that such an institution would be a precious guarantee of success for the increase of French trade in the Netherlands Indies, if it included in its membership a few men capable of properly directing its efforts. I took the initiative some time back in bringing together the French merchants on the first and third Sunday of each month. My object was to place before them the commercial publications which I received, to show them correspondence which had arrived, and to submit to them offers from French producers. The merchants came regularly at first, then came more seldom, and finally, either through indifference, or because they did not like to lose their Sundays, they ceased coming altogether. I see, in reading the reports of my colleagues of the French Consular service, that the same errors are repeated by French merchants in nearly the same form in all exotic countries.

As regards everyday articles of domestic consumption, cheapness is the first quality looked for, and to this, French exporters do not seem to be able to resign themselves. Apart from alimentary produce the inhabitants of the colonies are inapt to distinguish good manufacture from bad, and if, by experience, they discover the distinction, their improvidence prevents them from taking advantage of the knowledge. Fully understanding this appears to me to be the true cause of the success of German industries in many centres where French industries fail. But if colonial consumers accord little favour to French produce on account of its high price, they know how to appreciate French workmanship, executed under their eyes. It is a Frenchman, M. Roussel, boot and shoe manufacturer at Batavia, who has secured the contract, over the heads of five Dutch competitors, to supply footgear to the army for ten years, the minimum supply being 2,000 pairs a month. The native soldiers of the colonial army formerly went barefooted, but during the Lombok expedition a great number died

pany's option at par. The above conversation will, on the amount issued, effect an annual saving of £975 in interest, a result which cannot be regarded as other than highly satisfactory.

The paid-up Capital of the Company now stands as under—

9,000 Preference Shares of	£5, fully paid ..	£45,000
1,000 ,, ,,	£5, £1 paid ..	1,000
800 Ordinary ,,	£5, fully paid ..	4,000
17,088 ,, ,,	£5, £3 paid ..	51,264
Calls paid in advance on Preference Shares	..	320
4½ per cent. First Mortagage Debenture Stock	..	65,000
		£166,584

The amount at credit of profit and loss account after paying Debenture Interest and all charges, and providing for depreciation of buildings and machinery is £9,342 2s. 5d., and after deducting the Interim Dividend paid upon the Preference Shares in November last, there remains a balance of £8,800 16s 4d. which the Directors recommend be apportioned as follows :—

To reduction of Debenture Issue Expenses Account	£3,500 0 0
,, payment of the Preference Dividend for the 6 months ending 31st December last (making 6 per cent. for the year), less tax	649 18 6
,, payment of an Ordinary Dividend at the rate of 8 per cent. per annum (free of tax)	4,421 2 6
,, carry forward to next account.. ..	229 15 4

The Directors have much pleasure in again recording their satisfaction with Mr. Denison's management in Ceylon, and the work done by the Superintendents. The retiring Directors are Mr. T. J. Lawrence and Mr. Thomas Mearcs, who being eligible, offer themselves for re-election. The 6 per cent. Debentures having been paid off, the appointment of Auditor rests with the Shareholders, and Mr. A. N. Frewer, Chartered Accountant, offers himself for election.

HUGH C. SMITH, Chairman.
J. HUNTLEY THRING, Managing Director.
HUGH CHAPMAN, Secretary. London, April 27, 1896.

SCHEDULE OF ESTATES.

Names of Estate.	Acreage Tea.	Acreage Cocoa and Coffee.	Acreage Cocoa and Tea.	Forest Waste & Cheena (approximate).	Total Acreage (approximate).
Bogahawattee ..	541	..	..	77	618
Le Vallon and Rajatalawa* ..	1,216	..	..	2,358	3,579
Denegama (one-half) ..	155	..	..	69	224
Peacock Hill ..	300	..	..	192	492
Keenakelle (including Serendib and Keenagashena)† ..	500	..	40	810	1,570
Peradenia ..	424	..	..	747	1,171
Oodewelle ..	417	..	..	978	1,395
Ooragalla ..	320	..	..	129	449
Wiltshire and Hampshire‡ ..	269	..	..	517	844
Wangie Oya ..	445	..	..	122	567
Moralioya and Wilton	188	..	..	267	455
Pathragalla ..	100	276	30	319	725
	4,875	276	70	6,585	12,089

The above may be considered an exceedingly satisfactory report, and I may deal editorially with one or two *special features*.

CEYLON TEA IN AMERICA.

Everybody in Ceylon knows how cautious is the Planters' American Commissioner. One is always safe in adding something to Mr. Wm. Mackenzie's anticipations, because they are nearly always sure to err on the safe side, just as in the case of some other authorities, one is inclined to allow for over-sanguineness. Well, from Mr. Mackenzie I have had a very interesting and satisfactory account of the continued progress made by his own and Mr. Blechynden's mission, on behalf of our and Indian teas. That these are gradually getting a firm hold of the American market is the great fact, the large dealers being forced by the badness of the Chinese "black" teas, to take ours instead. The campaign against the adulterated "green" teas has not developed yet, but will come later. Lipton has now commenced tea dealing in America on a very large scale and so has the Mazawattie Co., as well as the Messrs. Tetley. Mr. Mackenzie does not expect a great increase in the consumption of Ceylon-Indian teas this year over 1895—the great rise has been in 1894—for it is every alternate year that indicates special progress, it requiring at present a second year to work off the teas poured in, say in 1895. But I cannot see why an accelerated rate of progress should not shortly be expected ; for the trade now being built on a sound basis is bound to develop widely. Indeed, one firm of dealers in our teas already spends in advertising in its own way as big a sum annually as the "Thirty Committee of Ceylon" allot to America ! Mr. Mackenzie has certainly surprised me as to the cost of advertising in the leading papers and periodicals of the States, and I question if in England, so large a price was ever paid, as £750 for one page on the back cover of a leading monthly—just for the one insertion, but that I am assured is the rate demanded !

Mr. Mackenzie, who looks very well, would like Mr. Melville White (now on his way home) to take his place for the summer or autumn tour of two months across the Atlantic ; but the ex-chairman indicates he is coming home for a holiday rather than to attend to business. —The dispute between

SIR JOHN MUIR AND MR. JAMES SINCLAIR

over Belgravia and Elgin estates is, of course, much talked of in Ceylon circles in the City. There is a general feeling that there is bound to be a settlement, if not a compromise, satisfactory to the shareholders. Mr. Sinclair, I hear, is personally in exceedingly strong legal hands who have been very careful about his position ; while the opinion of the Solicitor-General for Scotland has been taken on the dispute and is very clearly against Sir John Muir. Still, for aught I know, there may be strong legal opinions the other way. The question has been asked why the statutory meeting is delayed : well, the due date is not yet fully up, I hear; and it would obviously be unwise to make a statement while negotiations are pending, which it is generally hoped will obviate a case in the courts.

* Also 5 acres cardamons.
† Also 120 acres coffee, and 100 acres cocoa.
‡ Also 55 acres cocoa and 3 acres cardamons.

NEW TEA LAND CLEARINGS IN HALDUMULLA.

There are several new clearings and extensions for tea cultivation in progress. Mr. Anderson, of Troupe estate, Talawakelle, proprietor of Ohiya estate, in the Kalupahana Valley, adjoining Meriatenne estate is clearing nearly 200 acres for tea land. Ohiya estate adjoins Udaveria on one side, and at the last sale in the London Market Udaveria tea fetched a very good price. The tea bushes in the latter estates are worth looking at, they are a fine sample of the best tea grown in the island.

Mr. W. Hermon, the Superintendent of Golconda no bo half of the proprietors, Capt. Farquharson

and Mr. Buckworth, is busily engaged in felling and clearing an old estate called Talapotenne, close to Nikapotu, and expects to open and plant nearly 100 acres of tea this year.

Mr. B. J. Wyllie, Superintendent of Kalupahana estate, on behalf of Messrs. Hope and Bailey, is opening a new estate called Horagonne, close to s aldummulla, and intends planting 200 acres of tea hortly.

Mr. A. Orchard, who bought some plots of land betw een Beauvais estate and Blackwood at the recent Government sale, has made a bargain by selling them to Mr. Hudson, who will open the land for tea and reside on it.

The estate called Bandara Eliya is a new one adjoining Dambatenne, and opened only three years ago. The property belongs to Mr. Lipton, and is under the management of Mr. Maitland. It was the tea from this estate which was purchased for Her Majesty the Queen at the recent sale reported in your paper of the 13th inst.—*Cor.*, local "Times."

KADUGANNAWA AND ALAGALLA.

Taking a leisurely stroll through Kadugannawa and Alagalla last week, I was struck with the slow progress much of the tea is making in this very fair soil and not unkindly climate.

Tea is not a particularly fastidious plant but where the surface soil has been scraped and washed away, it is apt to sulk for a few years till at length the roots make a desperate plunge into the subsoil and the tree becomes established, not quite so firmly or vigorously as in the clays of some of the upper regions but flushes more in proportion to its size and appearance. There are splendid exceptions even in this locality and these exceptions chiefly lie at the opposite ends of the district where the plants come away in a manner so magical as to astonish nobody so much as the lucky proprietors who sometimes remark that when they tried tea they knew as much about it as they did of the apple which Eve ate.

So much for sheer luck—or call it by any other name that pleases you, and I am equally satisfied; but it rather amuses an onlooker to see London correspondents falling down to worship the "far-seeing intellects" who created those estates and knew to a dead certainty, before planting them the number of lb. leaf each acre would produce—the men who can now by a wave of their magic hand decide the fate of investors.

KADUGANNAWA has quite a unique history. Its planting record dates back for fully 70 years—even to the first initiation of practical planting in the island. Alas! how much has been lost and won, learned and forgotten, during these three-score-and-ten years! Some have accidentally as it were, stumbled upon fortune and had honours thrust upon them, while many capable, careful, plodding men have died in the vain attempt to acquire a competence. Some there are who never touch a thing but it turns into gold, while others.

"Never loved a tree or plant but 'twas the first to fade away."

To ascribe all success to one's own superior intelligence is to mock an inscrutable Providence.

Take first the extreme South end of this district. Everybody knows *Mariawatta* but everybody does not know the history of *Weyangawatte*. We can imagine with what eager hopes poor George Bird began his experiment there; now 72 years ago, how he loved to look upon the beautiful young coffee plants; with what delight he gathered the bumper maiden crops; and then as years rolled on with what anxiety he watched the gradual decay of the once promising plants. Then came the wise-acres who said "coffee growing is all a fraud let us turn to Dairy farming," and now see the plough at work, followed by the grass planting the luxuriant meadows, the browsing cattle. All in turn to be abandoned, and then *there is a lull.*

Again arose the wise-acre saying "the old fogeys didn't know how to plant coffee, let us plant it properly and no fears." Again history repeated itself, again there was rejoicing over the bumper maiden crop but again—sooner than before,—came the day when all was leafless Shillelahs

And now came the strangest epoch in the history of this wonderful Watte. Despised and abandoned once more, hope seemed to fly and sigh farewell, In the midst of the desolation stood the empty bungalow, now gladly lent to shelter a sub-contractor on the railway extension.

This sub-contractor by the way was once on a time a leading V.A. an M.L.C. and a planter of long and varied experience. His dictum with regard to poor Weyangawatte was that he had never seen a more hopeless subject; the roots of the coffee tree as he pointed out would take no hold of the soil but running along the surface soon exhausted all the suitable food and died of what R.B.T. called '*insidious defunction*.' Ultimately the place was sold for a few hundred pounds to the Railway Contractors who though giants in railway engineering were as yet infants in agriculture, and as such were chosen to teach the proud V.A. and conservative planter that there were other paying products beside coffees.

"A tree of deeper root was found
Less willingly to quit the ground."

Of the present condition of Mariawatte and Sinnapittiya it is needless to say more than that the appearance could scarcely be improved upon. Yet some of the adjoining places are backward to a degree, while over the ridge the comparatively rich Valleys of Godadessa still hang fire, but it can only be a question of time. On the opposite side of the Oya lies Franklands where in the fifties we found Forest Harper busy taking in a first rate crop, shortly after which he went home for some years and when he came back the Watte was gone! Coffee did well here for many years, but when it made up its mind to die it didn't hesitate about it or wait for leaf disease. Forest Harper was a favourite spouter at the P. A. meetings and immediately on his return we saw him at the big yearly gathering listening eagerly to the appointment of district members, but Kadugannawa was never mentioned. Indignantly the old member rose and demanded to know who struck out Kadugannawa. "*It went out*" was the laconic reply. All along the eight miles leading to Bellongalla the district is still in a semi-abandoned state, but the land after 30 years rest ought to do very well in tea if it gets a fair chance. *Bellongalla* itself is now looking very promising, but has taken a somewhat unconscionably long time about it. On the other side of the line "The Farm" has made a good start and will in time become an excellent estate. Further north, on the Nanuoya there are some scattered patches of fairish tea, but at the extreme end of the district near to Bollagalla. There is an estate 400 acres, than which there is no better tea in the island.

There is plenty of room for extension, both in North and South Kadugannawa and the marvel is,—considering its proximity to road and rail that it has been left so long uncultivated. The longer rest the better perhaps, but better still would it have been for this district had the fine old shade trees never been cut down. A writer in the *Observer* 40 years ago remarked "In 1840 we found Mr. Northway busy girding and taking down the trees which had originally been left for shade, the idea of the benefit being about that time finally exploded.' But alas! to this idea we were indebted more than to anything else for the rapid ruin of Kadugannawa as a coffee producing district.—*Cor.*

THE WYNAAD.—A correspondent of the *Madras Mail* writes:—"Tea planting, in the opinion of many, is superseding coffee in the Wynaad and is fast attaining the position of the staple industry. Mr. W. B. Liddle, Managing Proprietor of the Liddlesdale Tea and Cinchona Company, has just brought out from England a 40 horse power engine to drive the machinery in the tea houses on the Pilly-Mullay estate. This fine property is 7 miles from Gudalur in the Nadanahgny direction."

SCOTTISH CEYLON TEA COMPANY, LIMITED.

HALF-YEARLY REPORT.

The Directors have now the pleasure to submit to the shareholders the accounts and balance-sheet for the year ending 31st December 1895.

		£ s. d.
The net profits for the year amount to £8,801 9s 8d, which, with £669 10s 9d brought forward from previous year, gives a total sum available for distribution of ..		9,471 0 5
An interim dividend on the ordinary shares of 5 per cent (free of Income Tax) was paid in September 1895, absorbing ..	2,050 0 0	
Dividends on the 7 per cent preference shares have also been paid, amounting to ..	630 0 0	
It is now proposed to pay a final dividend on the ordinary shares of 10 per cent (free of Income Tax), making 15 per cent for the year, absorbing ..	4,100 0 0	
To add to Reserve Fund (raising it to £6,000 ..	1,000 0 0	
And to write off for depreciation on buildings and machinery ..	838 6 8	
		8,618 6 8
Leaving a balance to carry forward to next account of		£852 13 9

Although all the buildings and machinery on the Company's estates continue to be in efficient order, it has been thought advisable to continue writing down their cost, and the amount which it is now proposed to write off represents 10 per cent on their value as it stands in the Company's books at 31st December.

The estimate of made tea from the Company's estates for the year was 661,000 lb., and the actual out-turn was 668,049 lb., shewing an excess over estimate of 7,049 lb., which the Directors consider very satisfactory.

In addition to the foregoing, a total of 220,743 lb. Tea was manufactured for others, the tea actually turned out by the Company's factories during the year thus amounting to 888,792 lb.

The average yield per acre was 433 lb., which shews a steady advance on the figures given in last report.

The average price realized in the London market was a fraction lower than previous year, being 8·904d against 9·233d in 1894, and 9.190d per lb. in 1893.

The Ceylon Manager, Mr. Kerr, who is now on his way home on short furlough, reports that all the Company's estates are in good condition, and his estimates for the current year, which have been framed with his usual care, foreshadow another satisfactory year's working of the properties.

The acreage of the Company's estate remains unaltered at 1,963 acres, and no extensions have been made to the area under tea cultivation, which stands at 1,707 acres, of which 1,544 acres are in full bearing.

The Directors again take the opportunity of expressing their appreciation of the services of both the Ceylon and London staffs.

In accordance with the articles of Association Mr. Donald Andrew retires from the Board, and, being eligible, offers himself for re-election.

Mr. J. B. Laurie, C.A., also offers himself for re-election as Auditor.

H. L. Forbes, Chairman.

London, 1st May 1896.

THE TEA MARKET

has further developed in buoyant tone. China Tea is in better demand; and no wonder, seeing the heavy drop in prices for the first crop leaf still held by importers. Indian growth shows the most marked advance, the lower grades as much as 1d. per lb. from the lowest point. Supplies are becoming much reduced as deliveries are on a large scale.—*L. and C. Express*, May 1.

MARKET FOR TEA SHARES.

Thursday Evening, April 30, 1896.

There has been further strong buying, at advancing prices, of most of the better known tea shares, and again the "Official List" quoted advances in no less than five of the leading shares—Jorehaut shares having been twice advanced within the week. Even unquoted shares show in many cases advances in price since a few weeks ago.

Mincing Lane is again firmer, with an all round advance in prices, consequent on tho shortness of the supply of Indian still left out of the 1895 crop to come to the hammer.

Quoted Shares.—East India and Ceylon, both Ordinary and Preference are asking for a price.

Unquoted Shares.—Ceylon Shares.—C. T. P. Co. Ordinary have again been taken at 30¼, but some shares are now offering ex div. The Prefs. are wanted, but ask £18 or so.

Eastern Produce and Estates Co.—A large business has been done in the shares of this company at prices rising to 5½ x.d., and also in the new 4½ per cent debentures at 105. We now quote the compann in our table, as it is the largest single tea company in existence, having over 11,000 acres under cultivation (tea, coffee, &c.).—*H. and C. Mail.*

PLANTING AND PRODUCE

A New Indian Tea Company.—The Borholla Assam Tea Company, Limited, has been formed, with a capital of £50,000, to purchase as from January 1, 1896, the well-known Borholla Tea Estate, situate in the Golaghat district of Assam. The estate comprises an area of about 2,932 acres, 1,538 of which are held in fee simple, and 1,394 are held under leases, all of which are direct from the Government of India, and the greater part renewable in perpetuity under the Government regulations. There is therefore ample room for large extensions, which will be made as circumstances permit. The cultivated area is 520 acres, ten of which are in their first year, leaving 510 in full bearing. The directors of the company are Lord Kingsale, managing director of the Moran Tea Company, Limited, East India Avenue, E.C., late of Assam, and Charles Lionel Prescott White, Esq Kniphill, Cobham, Surrey, proprietor of Lungsoong Tea Estate, late of Assam. Frederick William Jamieson, Esq. (Messrs. F. W. Jamieson and Co.), 9, Mincing Lane, E.C., merchant, late of Assam, will join the board after allotment. The offices of the company are at 9, Mincing Lane, E.C.

Popularising Tea.—If the British public does not increase its knowledge of tea and learn the reason why Indian and Ceylon teas have displaced China it will be due to indifference on the subject. In various towns lectures on tea are given, and in some instances representatives of the tea trade are the lecturers. Mr. Allen Cooper, the Southampton representative of Messrs. Appleton, Machin, and Smiles, recently entertained about fifty ladies and gentlemen at that firm's sample and tasting rooms, 126, High Street, Southampton. Mr. Cooper gave a short address on the different growths of tea, and in the course of his remarks said the displacement of China teas by the growths of India and Ceylon was due not only to the superiority of the Assam plant itself, but also to the better mode of preparation employed. The use of machinery, introduced by British skill and energy, had reached such a pitch that in some gardens tea was fully manufactured within eight hours

from plucking the leaves. In China tho grower had sometimes to transport the plucked leaves many days' journey before they could be manufactured into properly prepared tea, and this preparation was done by the slower and less wholesome process of hand labour. The public should, as far as possible, buy small young leaf tea of high quality. Such tea always fetched a higher price on the market, and he impressed upon his hearers the desirability of procuring high-priced teas from their grocers.

THE DECLINE OF THE CHINA TEA TRADE.—The Customs returns for 1894 show that in 1890 our imports from China were £4,830,850, but that in 1894 they had fallen to £3,543,362. This decrease of £1,287,488 is entirely due to our having imported less tea, the difference in value between that imported in the above years being £1,285,802.

JAPANESE PLANTING ENTERPRISE IN MEXICO.—It is stated that a Japanese Company has purchased a large tract of fertile land in the State of Chiapas, Mexico, and that tea, coffee, tobacco, and any tropical cultivation likely to prove profitable will be grown there. Japanese labour is to be employed.

SAN DOMINGO COFFEE.—The cultivation of coffee as well as sugar is making rapid progress in San Domingo, and the next crop promises well.

THE SUMATRA TOBACCO INDUSTRY.—A monograph upon this profitable industry, prepared for his Government by Mr. E. Spencer Pratt, the United States Consul at Singapore, gives the profits for each year of its existence of the Deli Maatsehappy, a Dutch company formed at the close of 1869 for the purpose of introducing the growth of tobacco on the east coast of Sumatra. In the first year, 1870, the profits of the company were at the rate of 20 per cent. on the capital invested. In each succeeding year there was a steady and important increase, until in 1876 the earnings reached 113 per cent. The company then enlarged its capital, and in 1877 only about 22 per cent. was realised. The previous high degree of prosperity soon returned, however, and in 1882 the profits slightly exceeded 100 per cent. Down to 1886 the average returns continued for four years at very nearly the same rate, falling in 1887 to 45 per cent. In 1888 the capital was doubled, amounting then to £335,000, but even upon this increased sum the earnings exceeded 25 per cent. In 1889 they were nearly 80 per cent., but 1890 was a disastrous season, showing a loss of about 9 per cent. This was soon recovered, however, and in 1891 profits were realised of 30 per cent., in 1892 of 50 per cent., and in 1893 of 100 per cent. The great success of this enterterprise is due primarily to the excellent quality of the leaf produced by it, which is extensively used, particularly in the United States, for the outer "wrappers" of cigars. There are now twenty-six companies and about twenty-five private planters engaged in this industry in Eastern Sumatra. The total production of the district in 1893 was 160,000 bales, of which the Deli Maatschappy grew nearly 58,000 bales. With much difficulty Mr. Pratt has obtained a supply of seed of this tobacco, which he has forwarded to a Florida planter and to the Department of Agriculture at Washington, with a view to its cultivation in the United States.—*H. and C. Mail*, May 1.

TEA IN AMERICA.

NEW YORK, April 16.

Not a ray of light to brighten the situation, unchanged from a week ago. When brokers issue circulars for China once every three or four months, there is little to be said by newspaper reports from week to week. Low-grade Japan firm; high grades steady; fine Formosa wanted at full figures; low grades weak. Greens dull and easy. Ceylon and India well supported and in fair demand.

Last week the Montgomery Auction and Commission Company sold 11·084 packages teas as follows: Moyune—400 Hyson, 5 to 6½c; 1,327 Young Hyson, 6 to 24 c.: 582 Imperial 5½ to 17 c.; 643 Gunpowder, 6 to 30½c. Pingsuey—1,821 Gunpowder, 6¾ to 21½ c. Japan—147 pan-fired, 15 to 16 c; 185 basket-fired, 6½ to 8¾c 120 sun-dried capers, 15c: 917 Congou 7½ to 23½ c; 121 India and orange pekoe, 10½ to 20½ c. Oolong—890 Foochow, 8½ to 17c; 302 Amoy, 8 to 9½ c; 3,746 Formosa 12½ to 31c.

Today at noon the Montgomery Auction and Commission Company will sell 6,503 packages, viz: 1.506 half-chests Moynne, including attractive chops; 1,419 half-chests and boxes Pingsuey, new season's; 1091 half-chests and boxes Congou, comprising all grades; 20 boxes Foochow pekoe; 97 packages India Java and Ceylon pekoe; 100 half-chests Foochow; 2,270 half-chests and boxes Formosa, all new season's and comprising a large offering of high grades.—*American Grocer*, April 15.

TEA IN AUSTRALIA.

Friday Evening, May 1.

TEA.—A moderate business has been done in China tea, sales being reported of 120 half-chests common congou at 4¼d, 450 half-chests panyong at 5d to 5½d, 170 half chests panyong at up to 6½d, 520 half-chests kooloo at 4½d to 7¼d, 350 quarter-chests buds at 5d, and 100 half-chests buds at 4¾d. Of Ceylon teas, 300 packages have been sold at 7d to 8d, and 20 chests at 11d. At the auction sale on Tuesday 184 chests and 166 half-chests Ceylon were offered. The prices realised and bid showed no change in the market, late rates being maintained, but the sales made amounted only to 42 chests and 78 half-chests at 8d to 9½d for broken and orange pekoe, 7d per pekoe, 6¼d for pekoe souchong, and 4¼d for souchong.—*Australasian.*

GREAT WESTERN TEA COMPANY OF CEYLON, LTD.

A general meeting of the Great Western Tea Company of Ceylon, Ltd., was held at noon today in the office of Messrs. J. M. Robertson & Co., the Agents and Secretaries. Mr. John Tilly presided and present were Messrs. F. W. Bois (also representing Mr. H. Bois and Messrs. J. M. Robertson & Co.), Charles Cantlay (also representing Mrs. Thomas Mackie), Thomas Mackie, E. Vanderspar (representing Mr. George Vanderspar), W. Moir, and C. Ryan (also representing Mrs. Margaret Ryan.)

Notice calling the meeting having been read and minutes of previous meeting read and confirmed the Chairman submitted

THE REPORT.

It is in the following terms:—

The Directors submit their annual Report and accounts for the season ending 31st March, 1896, which may be considered satisfactory:—

The yield of tea during this period has been 438,425 lb, which is 66,192 lb. over the amount secured for the previous season; and 38,425 lb. in excess of the estimate. The cost f. o. b. in Colombo is 29·78 cents per lb. including 3·27 cents per lb. on manuring. There has also been unusually large expenditure for additional line accommodation as foreshadowed in the original prospectus of the Company.

After estimating the unsold tea at a safe valuation, the amount realized for this product is R246,664·13, which is equal to 56·26 cents per lb., shewing a nett profit on the cultivation of about 26½ cents per lb.

An interim dividend of 8 per cent for the half-year ending 30th September, was paid in November, 1895; and after providing for this, and writing off the usual amount for depreciation, the sum still available is R68,517.89. Your Directors propose to place R10,000 to Reserve Fund, to pay a final dividend of 10 per cent, making 18 per cent for the year, and carry forward R117·89 to next account

The prospects for the season 1896-97, are favourable and the crop is estimated at 440,000 lb.

Mr. Dunbar and Mr. Henry Bois having left the island and resigned their seats on the Board of Directors, Mr. John Tilly and Mr. F. W. Bois were appointed to fill the vacancies.

In terms of the articles of Association, Mr. Thomas Mackie retires by rotation: but, being eligible, offers himself for re-election.

It will also be necessary to appoint an Auditor for the new year.

The CHAIRMAN said:—The reports and the accounts have been in your hands since 1st May so that you have had time to peruse them, and I suppose we will follow the rule of taking them

as read. Since the accounts were issued we have had telegraphic advices of several other sales, and there is only one sale of which we have not had a report from home. This gives us a satisfactory addition to the amount received during last season—I should scarcely during the season—and it will give us an extra R4,000 which has not appeared in this year's account, but it will be added to the amount carried forward—R117·89. The Directors propose as you will see by the account to allow for depreciation, the payment of an interim dividend of 8 per cent, the transfer to the Reserve of R10,000 and a final dividend of 10 per cent. The crop has been very satisfactory—450 lbs. to the acre. I don't think there is any other information I can give beyond what is given in the report unless any shareholders wish to ask any question.

Mr. RYAN :—I understand that the R4,000 is over and above what you estimated as the crop.

The CHAIRMAN :—Over and above R117·89 carried to next account. If you look the profit and loss account for 1895-6 you will see the sum of R4,047·16 which was the surplus proceeds of the previous year. This R4,000 will be carried forward in a similar way this year.

After a pause.

The CHAIRMAN said :—At the request of one of the shareholde·s we have worked out the gross average price of the tea in London from all the sales of our knowledge—there is only one which we had had to estimate. The gross average in London has been 9·31d, the charges coming to a little over 1d leaving a net average of 8·30d.

Mr. VANDERSPAAR:—Is that the London charge.

Mr. BOIS :—The London charge is 1·01d.

The CHAIRMAN :—Exchange has been against us this year a little making a difference of nearly four cents.

Mr. BOIS :—Mention the rate.

The CHAIRMAN :—The average rate has been 1s 1d 15-16. I propose that the report be now adopted.

Mr. RYAN :—There is one question regarding an item I do not understand "Directors Travelling Expenses R350."

Mr. BOIS :—The expenses are those of upcountry Directors coming down to meetings.

Mr. VANDERSPAR :—They are in excess of the Directors' fees ?

Mr. BOIS :—Yes. You will find the item in the previous accounts.

Mr. RYAN :—I think it quite right and a proper thing. I have not noticed it in the accounts before.

Mr. BOIS :—Last year they were R804.

Mr. MOIR :—I suppose the Directors' fees remain at R2,000.

Mr. BOIS replied in the affirmative.

Mr. VANDERSPAR :—Is there any limit to the travelling expenses?

Mr. BOIS replied that the expenses were kept within reasonable limits.

Mr. VANDERSPAR:—Last year you say it was R804.

Mr. BOIS :—It depends on the meetings that are held. The Directors are not called for meetings unless it is necessary.

Mr. MACKIE :—They do not come for amusement.

Mr. MOIR :—I have pleasure in seconding the adoption of the report and accounts.

Mr. RYAN said :—There is one question I should like to ask. On what principle is the rate for depreciation fixed ?

Mr. BOIS : It is fixed at 15 per cent on the machinery and other movable property, and at 10 per cent on immovable property.

The report and accounts were then unanimously carried.

THE DIVIDEND.

On the motion of Mr. RYAN, seconded by Mr. VANDERSPAR, a dividend of 10 per cent making 18 per cent for the year was declared, to be paid forthwith.

ELECTION OF A DIRECTOR.

The CHAIRMAN :—In terms of the Articles of Association, Mr. Mackie now retires from the Directorate, but is eligible for re-election and offers his services.

Mr. MOIR moved the re-election of Mr. Mackie as a Director.

Mr. VANDERSPAR seconded, and the motion was carried unanimously.

THE AUDITOR.

Mr. RYAN proposed, Mr. MOIR seconded, and it was unanimously agreed to appoint Mr. John Guthrie, Auditor for the current year.

This was all the business, and the meeting terminated with a vote of thanks to the Chairman.

"GUP" FROM MINCING LANE.

May. 1.

There was active bidding at Tuesday's Ceylon sale which comprised the heavy total of 26,000 packages. Prices in most instances were ¼d to ½d higher, quality going for something. The deliveries for April were large and the orders for Russia go on increasing. According to common report the Russians have sent greatly diminished orders for the new season's tea to Hankow intending to buy in this market, as it has for some years been much cheaper than buying direct. We may therefore perhaps look for higher prices for China tea at the opening of the market in July than has been the case for some years, and this cannot fail to divert some of the Russian orders to Ceylon Tea.

THE RHEA INDUSTRY.

Sometime ago an effort was made in Ceylon by a well known resident to secure a concession from Government for the purpose of planting rhea, and although His Excellency Sir Arthur Havelock did all in his power to promote the scheme the negotiations unfortunately fell through. Since then, however, we hear that one or two planters have been experimenting in the rearing of the plant, and hopes are entertained of a successful issue From London we hear that the operations of the Rhea Fibre Treatment Company are being attended with a large measure of success, orders having been received from leading houses in Manchester and Nottingham, and the Drury Lane and Empire Theatres for silk garments which require to be of special strength and take on the dye well. We have seen a sample of the lace curtains manufactured at the Castleton mills belonging to the Company and it is of very fine quality and strength. Further we hear that Mr. Lane Fox, who has taken a very great interest in the matter is now in America establishing the industry and his efforts are being attended with much success. The patent has already been purchased in India and other countries are negotiating for it. The Rhea Fibre Treatment Company, as its name indicates, deals entirely with the treatment of the bark and all the planters have to do is to decorticate and dry and bale the bark.

HOW TO SECURE "PURE CEYLON TEA" BEING SOLD IN ENGLAND.

It has struck a gentleman largely interested in the home tea trade, as well as in the prosperity of Ceylon as an old planter, to suggest a novel check on the sale of our tea in the big towns of the old country. It seems that packets labelled "Pure Ceylon Tea" are now very common and very popular; but our friend maintains that the said packets contain a good deal other than "Ceylon" tea. It is to check, expose, and stop this blending system that the proposal is offered and this is how it has been laid before us:—

"Messrs Cadbury Bros., the chocolate and cocoa manufacturers, have a system of annually sampling the whole of Glasgow and other large towns in Scotland and England. This is done in the interests of their cocoa trade and to let people see what like their pure cocoa essence is. I am under the impression that a similar procedure with small packets of pure Ceylon tea would do a lot of good. Even now there are thousands upon thousands of our people who do not know what it is to have a cup of pure Ceylon tea. The packets must be put up in lead—and ¼ oz. packets would be large enough, or even less. Something after the following style printed on the packet might be adopted:—'*Pure Ceylon tea—ask your grocer for it and see that you get it.*'

"If the Planters' Association will take it up, I will supervise it in Glasgow only. I can't do it outside of Glasgow. The system of sampling is done as follows: A map of Glasgow is purchased and a given number of strong young men with samples 600 each, proceeds to sample a given street, which at end of every day's work is marked in red. And so on, day by day and street by street, until the whole of the city has been gone over. This system has been going on now for years and Messrs. Cadbury find that their sales increase year by year. It will take six strong active young men four months to go over Glasgow. It is undoubtedly hard work as the stairs are very trying and six hours a day is all that a man can stand. The probable cost would run as follows:—

6 men for 16 weeks at £1 per week	£96 0 0
Cost of 5,400 lb. of tea landed in Glasgow at 1s per lb... ..	270 0 0
Prime cost say 8d per lb. packing in lead and printing in Colombo, say 2½d per lb. duty on 5,400 lb. at 4d per lb.	90 0 0
Clerk for 5 months £24; stamps and stationery, storage &c. £19 say	44 0 0
	£500 0 0

If you think the above plan or sketch would be worth submitting to the Planters' Association, please do so. I believe myself that a great deal of good can be done by such sampling. As you are aware, our trade does not lie in this direction, so that directly we shall drive no benefit although indirectly we may do a little. My experience is that there is still a fairly large quantity of cheap Indian tea mixed with Ceylon, and the whole sold as pure Ceylon. The population of Glasgow is 800,000.

We doubt if the same system of sampling can be applied to tea—as to cocoa—and this seems borne out by the information gathered in "the Lane" as to the difficulty experienced even by "experts" sometimes, in identifying different teas. Buying to blend, being also so great a part of the business done in Mincing Lane, it is doubtful if earnest support could be looked for from experts in that quarter. At the same time, if "Pure Ceylon Tea" is advertised, only Ceylon tea in common honesty should be supplied and it ought not to be impossible to ensure this; for there is some point in the further remarks of the writer quoted above when he says:—

"If all the tea sold as *pure Ceylon* was really Ceylon tea, the price in the London market would be pence per lb. more than what it is. The sooner steps are taken to ensure this the better. Why do we see advertised freely *pure Ceylon tea* and very seldom *pure Indian tea*? Why was it India was not able to oust China tea. Because Ceylon and China teas are self-drinking teas and Ceylon by far the best of the three—Ceylon tea improves many of Indian teas, but it is doubtful if India improves Ceylon. In fact they don't. The consequence is that heaps of Indian tea is sold as pure Ceylon. In most cases the difference is as great as margarine is from pure *butter*. Nothing ought to be left undone to let the public know what is pure Ceylon and what is Indian, and I venture to predict that the Ceylon planter and proprietor will largely benefit thereby. Now that China is out of the running this is really a serious matter for Ceylon, and the sooner it is tackled the better."

We leave the Planters' Association and Chamber of Commerce to say if any—and what—steps should be taken on the above suggestion.

INTERESTING NOTES FROM CALIFORNIA.

San Francisco, California, U.S.A.,
10th April 1896.

MY DEAR "OBSERVER."—Your lately received issues have continued many

COMPANY REPORTS

the perusal of which must have been most gratifying to the lucky shareholders, and some of my friends, who have requested the loan of your "Overland" from me, think that "Ceylon Tea" must be a veritable gold mine, and certainly the number of concerns paying from 12 per cent up to 50 per cent justifies them in forming such an opinion. I notice a healthy sign in many Companies, is the desire to build up gradually a good reserve fund, and this is but right after their big crops and low exchange. I wrote privately, many months ago, that silver was going to increase greatly in value, and you must all be prepared for this. I regret to see however, that in conjunction with the rise in silver, there is no improvement in the price of tea in London. I hope this will come about ere long.

I was much interested in reading the paper on "National Defence," by Lieut.-Colonel Sir George S. Clarke R.E., K.C.M.G. read by him at the Royal Colonial Institute on 11th February, the "Journal" of which Society was sent me by our good friend John Ferguson. In the discussion which followed the reading of this interesting paper, Admiral the Hon. Sir Edmund Fremantle, K.C.B., C.M.G. referred to Colombo, Kandy, Trincomalee and Ceylon generally, and what I may term the "local or narrow" way in which the so called

"MILITARY CONTRIBUTION"

is looked at in the Colony. The security enjoyed by every British vessel on every sea in any part of the world, the safety of our immense commerce, as also that of our outlying and scattered possessions, is entirely due to the size and the high state of efficiency of the British Navy. In times of trouble it is the Navy that will be called upon to defend our scattered possessions, and there can be no strong and effective Navy without naval harbours, where supplies, coal, and refits are maintained and can be had in time of war. Our "endless chain," forged by the masterly minds of former times, to enable us to hold our supremacy at sea, and, beginning at Gibralter encircles this globe by way of Malta, Cyprus, Egypt, Perim, Aden, Trincomalee, Hongkong, Esquimalt, Halifax, Bermudas, with branches to the Cape, and Australia, via St. Helena, &c.—this grand line *must* be for ever defended, or else we will cease to be the "Mistress of the Seas," our commerce dwindle to nothing, and starvation stare the "bright little, tight little Island" in the face. The time will come when closer federation of the Great Empire will necessitate the "pooling" of the immense sum required annually for defence, and when, with a larger and juster understanding of the matter, each colony and community will cheerfully

and willingly contribute its share towards the safety of the magnificent Empire of which it is privileged to form a part. With great pleasure I read yesterday the letter from our worthy member in Council, the Hon'ble Giles F. Walker, on the subject of the "Military Contribution," and he takes a fairminded and statesman-like view as opposed to a narrow and selfish one, of the question. Ceylon's responsibility does not end with the "3 mile radius" outside Colombo, Galle and Trincomalee: our produce has to reach London, Australia, and now America and Canada are to be large consumers also, and we *must* contribute some share of the cost of the protection afforded our produce by the British Fleet, on this long journey.

The extracts given from time to time from Major Wilson's report on

THE CEYLON GOVERNMENT RAILWAY

are most interesting reading, but what will be the result? Will there be any improvement? Will the report be pigeon-holed with so many others? Rates are high, consequently working expenses must be high, if they absorb about the same proportion of revenue as in other lines, where rates are very much lower. This is a point that is often lost sight of.

My meeting and conversation with Mr. T. Fairhurst of China and Ceylon, the well-known proprietor of Ferham and St. Andrews estates, gave me great pleasure.

It is about 19 years since I first met him in Bogawantalawa, I think it was his first visit to Ceylon, when he was on the lookout for an investment. He accompanied Mr. G. Rollo (of whose death I was sorry to hear), and I recalled this fact to him. I was told at the hotel office, Mr. Fairhurst was in his room, and was going towards the Elevator. When he came down by it, (this may sound rather strange), I stepped forward, and knew him at once. This is most flattering to his youthful appearance, and as luck would have it, the day was his birthday, which fact he had forgotten. We had a long reminiscent chat, and interesting facts were given me about.

THE "AMERICAN CAMPAIGN"

for Mr. Fairhurst had been all over the States and Canada, where he had met your worthy delegate *and* Mr. Blechynden, Mr. Fairhurst spoke of the difficulty he experienced in repeating orders for Ceylons to come up to standards, and the broken and dusty character of many grades of Ceylons that should not have these characteristics at all, and compared themt very disadvantageously with the fine bold clean teas from India. I lay stress on this point, so that it may be remedied by Ceylon men. I saw Mr. Fairhurst off on the China steamer on the 8th, meeting a number of the leading tea importers and brokers. He was glad to have the loan of your latest *Overland* issue, which I had received on the 7th inst.

I have heard some rather distressing rumours abou

MR. JOS. H. STILES,

Director-General of the British Empire Exposition, Montreal, Canada. I have heard that the proposed Exposition has been abandoned, and that there is some difficulty in Mr. Stiles meeting the heavy obligations he is under as Director-General, for a large sum already expended in furtherance of the now abandoned undertaking. I hope he will eventually succeed in making satisfactory arrangements and meeting all his obligations, as he was well-liked here and most honourable in all his dealings.

I am sorry my approaching departure for Southern California, (during the 1st week of May) will deprive me of the pleasure of meeting once more

MR. H. V. WEBSTER,

as he is not expected to reach here until about the 15th prox. I hope he will have a more than ever successful and pleasant trip this time. Several brokers and business houses wish to meet him, and I will leave the necessary "introductions," and hope some beneficial trade will result.

Another

EASTER SUNDAY

has come and gone. Here we had a very wet day, much to the disappointment of the ladies no doubt. I braved the elements in the evening and went to Grace Church, Episcopal. The music was of a very high order. It was a "festival" service, no sermon, prayers and singing, male voices, solo and quartettes. I have assisted at many church decorations, both in the old country and Ceylon, but I have never seen anything so pure, chaste refined, and artistic, as were the decorations on this occasion. Nothing but white flowers was used, with maiden hairs firms, and smilax; the effect was very beautiful and elevating. I found myself in the stanford pew; the late Senator and Millionaire Stanford having built and endowed the magnificent University in memory of his lamented young son Stanford junr. after whom the famous seat of learning is named. Nothing but white lilies of all kinds were used, from the beautiful and fragrant lily of the valley to the largs Calla lily, some white pinks or carnations, and camelias were also used, and the perfume was almost overpowering.

I notice many of the papers, with circulation of from 40,000 to 90,000 persist in calling them Eucharist lilies; and in talking of the French prince who has been somewhat prominent lately, they write of his relationship to the "Duc De Chartreuse" (presumably Duc De Chartres.) Probably a large number of Americans will imagine he makes the liqueur of that name, as the Benedictine monks make the liqueur named after them! In writing of the advance of the Egyption forces up the Nile mention was made of the arrival of the British Expedition at Wadi-Alfalfa. Wadi Halfa was meant I suppose, but where ignorance is bliss, "tis folly to be blistered," I understand Alfalfa is the clover food stuff, I think called in Ceylon, Luceru.

I was the means of securing from my friend Mr. Cawston, the proprietor of

THE FAMOUS OSTRICH FARM IN SOUTHERN CALIFORNIA

a fine donation of Ostrich feathers, eggs, and photographs, for the Park Museum here. The curator, a Mr. Wilcomb, a most intelligent gentlemen informed me they would soon be in a position to effect "exchanges," and when talking of our fine Museum at Colombo, he asked me if I thought anything could be procured from there. Now I am sure Mr Haly must have many things he could exchange profitably. He must have dozens of duplicates of such things as the famous cobra de capello (skins) also tic polonga and other deadly snakes, cheetah, boar, jackal, &c. &c., also some of the prettier birds and insects. I will be very glad if you can inform me as to the likelihood of obtaining any of these as exchanges. It will do Ceylon no harm, as, during the first year of its existence, this Museum was visited by over 500,000 people, a much larger number than attended the world-famous Smithsonian Institute! From the Planters' Association samples of all the different grades of teas, both fancy and commercial, would be acceptable, and of benefit to Ceylon I am convinced. I would respectfully direct the attention of A. W. Stopford Sackville, Esq., to this, and the expense to the "Thirty Committee" would be very little.

The annual meeting of

"THE ASSOCIATION"

was most successful, and the hearty vote of thanks to Mr. A. Melville White, the retiring Chairman, thoroughly well-deserved. I consider that, during the last decade, with Walker, Kelly, White, and now with Sackville, the Association has been most fortunate and its usefulness and prestige well maintained.

SIR WEST RIDGEWAY

appears to have made very favourable impression on his arrival amongst you, and I sincerely trust there will be more common sense and less red-tape and obstruction evinced in the matter of roads and other requirements for the good of the country, than has lately been the case. You have a good man, and although he is already famous in many ways, his appointment to Ceylon may be considered "the tide in his affairs," which will I hope "lead on to fortune." May he "take it at the flood," and so carry Ceylon along with himself to fortune.

The short accounts published in reference to the burning of

KINAGODDE TEA FACTORY

near Lunugalla, lead one to think there has been some foul play in the matter, and I hope the rascals may be punished severely. The difficulty will be in getting good reliable evidence. It must be very annoying to the proprietor and Superintendent, just as the busy flushing months are coming on.

My attention has been called to a communication in your "Overland" some time ago, from a

MR. BELING

in reference to his brother here. I have not time to look it up now, but he, I believe, stated I had forwarded to you some information that was wrong, or *too previous* was it? Nothing of the kind, everything was correct. Mr. Beling of America *had nothing to do with* the Ceylon Importing Coy. of Davenport, Iowa, and New York at the time I wrote By the way this Coy. has now nothing to do with New York.—They have closed up there some considerable time ago, and I believe W. Beling of America, is at work with a W. Bottomby of "Assam," selling Indian tea.

I corresponded with the Ceylon Importing Company of Davenports Iowa, and furnished all the information I could for them as requested. I have written to Ceylon praising them for their efforts in introducing our teas, and cannot understand what promp'ed your correspondent's somewhat unfriendly remarks. I am surely not to blame that Mr. Beling, of America, neglected to inform his friends as promptly as he might have done, of his movements, or change of address. I merely mentioned the matter casually, as an item of news, or gossip. I have never belittled Mr. Beling or his company or their efforts to push "Ceylons" here, and my criticisms of our worthy Delegate have been fair and open. I take it he holds a public position, drawing his salary from the Planting Community, and is therefore open to criticism, and where that is honest, and based upon three years' experience in close touch with the trade here, it can do no harm. Our Delegate is all right, and not so thin-skinned as is "Mr. Beling of Ceylon." However I will endeavour to make my letters more interesting in future, by leaving out all mention of Mr. Beling or his movements.

TIMES MUST BE IMPROVING

in the old country, for the figures published by the Board of Trade for the 1st quarter of the year, to 31st March last, show a tremendous increase both in imports and exports, compared with 1895. I trust this improvement will continue throughout the year.

I was glad to learn

THE IMPORTS OF "CEYLONS" TO CANADA AND AMERICA

were increasing so largely, and I hope America will soon take 10,000,000 lb. I forgot to mention the strong point Mr. T. Fairhurst made by the Russian Campaign. He says our teas are well known and are being pushed in Canada *by the trade*; less money must be spent here, and every effort put forth in Russia. Here I may note that the Hon. Giles F. Walker has never lost sight of this point, and has ever been a strong advocate of Russia receiving a sharo of available funds, this is as it should be.

THE "BELLICOSE" SENATE

are still making a laughing-stock of themselves to the world in general, and the better class of the people and press here. They want to "lick" somebody, not much matter who, but as the good papers point out (those not written for the rabble) the Senate had better give them something wherewith to fight, as they have no guns, few ships and fewer sailors and marines. This is the fact, and after all the bullying bluster of the last few months, the great Naval appropriations, which were to enable America to wipe everything off the face of the earth except America, have dwindled down to a paltry sum for three battleships and 12 torpedo boats; the former taking from three to five years to finish! I will arrange to send you regularly the leading "weekly" which I am sure will prove very interesting to Ceylon readers. The opinions of the "Argonaut" are always quoted respectfully in London and elsewhere. This publication is intensely American in the best sense of the word, and thoroughly patriotic, not written for the rabble and the lower classes of peculating politicians. It is strong for decency in all things, the Press in particular and is "down" on the national traits, vulgarity and display, which culminate in appraising everything at its dollar cost, irrespective of artistic merit or true value. A case in point was the recent Vanderbilt-Marlborough wedding, with its rehearsals in church, like some theatrical or circus performance!

My next will be written from the Sunny South, probably describing some of the beautiful "Floral Fiestas" that take place in the early summer all over the state. The elections of beautiful young ladies as queens, to preside in state, with court ladies and attendants, &c. &c., are now going on.

And now Mr. Editor, with Salaams to yourself and your readers, I am, yours truly. T.A.C.

MR. CHAS. LEDGER AND THE DUTCH GOVERNMENT.

In our issue of March 21st we printed the letter in which the Dutch Minister of the Colonies refused to entertain Mr. Ledger's application for additional remuneration in respect of services rendered by him thirty years ago in supplying the Dutch Government with South American cinchona-seed. Mr. Ledger has addressed to the Dutch Government a spirited reply to their refusal of assistance. He says:—

When in 1865 I sent the cinchona-seed (the origin of the now famed "Ledgeriana" variety to my brother in London, the then Consul for Holland, was introduced to him by the late Mr. J. E. Howard, who, among other statements, said: "In Java they are scientifically cultivating and propagating the cinchona more successfully than our own Government are doing in India. We are working, too, in the greatest harmony." With the understanding that, after consultation with his Government, a fair price would be paid for it, half of the seed (about 20lb.) was handed over to the Consul. No price was demanded. Some twenty days after 400 florins (about 36*l*.) was sent to my brother. Now, I would respectfully ask the Hon. Minister who were the experts that, without trial of assay, took upon themselves the responsibility of valuing what was more than standard gold at the price of copper? That the valuation was not fair was admitted when, sixteen years later, a further and quite inadequato 100*l* was paid to me by your Hon. Government.

In all my appeals for justice or return of moneys actually expended by me in adding so materially to the wealth of your country and people I have only once asked for a "reward," and to that I was impelled by despair on finding myself destitute through unforeseen misfortune in my old age.

For every pound paid to me your Hon. Government has gained hundreds—nay, thousands—of pounds, without taking into account future riches. I respectfully apologise for trespassing on your time and attention. I am desirous that in due time the public may be informed as to the true "character of the commercial transaction" the Hon. Minister quotes as reason for refusing the respectful appeal for reimbursement of moneys expended by me, and so enormously adding to the wealth of your hon. country and people.—Your humble servant,

(Signed) C. LEDGER.

Mr. Ledger has a good case, and he cannot be blamed for stating it with vigour. But we fear that Ministerial skin is too thick to be penetrated by any representations on Mr. Ledger's part or on our own. It would have been a gracious and, we think, a wise act of the Dutch Government to have given a small pension to an old gentleman whose efforts have admittedly been a source of great wealth to Holland and her

Colonies and who never asked for generosity so long as he was able to work for his living. Mr. Ledger is now 75, but even at the eleventh hour there is time for repentance for His Excellency at the Hague. Does Holland really wish to be just as mean to the cinchona pioneers that have added to its wealth as Britain has been to hers! —*Chemist and Druggist*, May 2.

DRUG REPORT.

(From *Chemist and Druggist.*)

London, April 30.

ARECA-NUTS.—Small sales have been made privately lately at 12s 6d per cwt. At auction 12s per cwt. was accepted for 10 bags of fair quality.

CROTON-SEED.—Slightly easier. Five 1-cwt. bags of good bright quality sold today at 65s per cwt., the same price at which a much darker lot found a buyer at the last auctions.

OIL (Essential).—Citronella oil continues to decline. A few days ago, 15 tons in drums, were sold at 1s 2½d per lb., c. i. f. terms, for steamer shipment to London until end of June, and 1s 2d, c. i. f. for ditto until end of August. Both sales were for oil standing Schimmel's test.

VANILLA.—In fair supply and good demand, an advance of 2s per lb. being paid for Mauritius and Seychelles beans, which realised the following prices:—Good to fine chocolate, partly crystalised, 7½ inches to 8 inches, 22s 6d to 38s 6d; medium to good, 3½ inches to 5 inches, 21s to 24s; brownish, 5½ inches to 7½ inches, 23s 6d to 26s 6d; common, 6s to 16s 6d per lb. A parcel of fine dried Ceylon beans realised the highest price ever paid for this variety, viz., 19s 6d per lb.

SEEDS (various).—Annatto seed rather firmly held for good quality. Fifty six packages Madras were bought in today, 4¼d per lb. being refused for a fine bright lot. Nine packages low West Indian sold, without reserve, at ¾d to 1¼d per lb.

THE AMSTERDAM CINCHONA AUCTIONS.

Our Amsterdam correspondent telegraphs on Thursday evening:—At today's public auctions of Java cinchona-bark 5,558 packages were offered. Nearly the whole of this—viz, 5,257 packages—sold, with fair competition, at firm prices, the average unit being 2·85c per ½-kilo, an advance of 0·05c on the March sales. The principal buyers were the English and American manufacturers, who bought 6,373 kilos sulphate of quinine; the Auerbach factory 5,402 kilos; Brunswick factory, 3,281 kilos; Mannheim and Amsterdam factories, 5,342 kilos; Frankfort-on-Maine and Stuttgart factories, 3,417 kilos; and various buyers, 3,682 kilos. The range of prices was as follows:—Manufacturing barks, from 7½c to 40¾c (equal to 1½d to 7¼d per lb.); Druggists' bark, from 11½c to 155c (equal to 2d to 2s 4d per lb.).—*Chemist and Druggist*, May 2nd.

THE CITRONELLA-OIL CASE IN COURT.

Few persons in the drug-trade knew that the citronella-oil case was to be brought before Baron Pollock and Mr. Justice Day in the Court of Queen's Bench on Wednesday, and that circumstance, no doubt, accounts for the absence from the court, with one or two exceptions, of the Mincing Lane produce brokers and merchants, whose interests are touched so closely by the general features and the broad principle of the case. It would have done good to some of the gentlemen who appear so much attached to the principle (said to have been held by the late Mr. John Bright) that adulteration is only a form of competition had they been present to hear what the Judges thought about that view. The case, of which a report appears in our Legal section, was decided in the manner which from the beginning has been urged in this journal as the only reasonable one: it was remitted to the arbitrators for reconsideration, with a judicial order that they must take into account the question of description as well as that of equality to sample; and Mr. Justice Day, while expressing his general concurrence with Baron Pollock's judgment of that effect, significantly added that, personally, he would have felt inclined to set the award aside altogether. Mr. Treatt, the defendant, has to pay the costs of the proceedings.

The parcel which was the subject of judicial inquiry on Wednesday was the third one purchased by Messrs. Domeier & Co. from Mr. Treatt. It had been treated in a manner resembling the first, only more so, and a touch of artistic blending had been added to the mixture by the addition of 10 per cent of oil of lemon to the 55 per cent of kerosene and 35 per cent of cetronella oil composing the remainder. Mr. Chitty, who appeared on Mr. Treatt's side, tried hard to bring in the question of the first parcel, on which the arbitrator's award, given against Messrs. Domeier & Co., had been accepted by that firm but it was rightly held that that lot was to be considered as a "dead-and-gone" transaction. Some pleasantries, not unnatural under the circumstances, were made at the expense of Mr. Domeier's "thirty-five-year-old nose," for that gentleman, in an affidavit read in court, deposed that he had been identified with the trade for thirty-five years, was considered one of the best judges of essential oils in the world, so far as his sense of smell was concerned, and had failed to detect, by olfactory examination, any impurity in the citronella oil now in dispute. This only shows the necessity of applying tests more scientific than those which the nasal organ affords to the examination of essential oils. A little cloud of dust was also raised by Mr. Treatt's counsel on the question of price. Pure citronella oil, that gentleman contended, was selling in the market at from 1s. 8d. to 5s. per lb. at the time when Mr. Domeier paid 1s. 10d. per lb. for the parcel in dispute. The higher price quoted could have only referred to a special brand, and was certainly not an indication of the market price of oil such as that contracted for. The question of price will not confuse the arbitrators.

When we first commented upon the citronella-oil case, in our issue of February 29 last, we called attention to the applicability to the dispute of a clause in the Sale of Goods Act of 1893, providing that if a sale be by description as well as by sample the bulk of the goods must correspond with the description as well as with the sample. We commended this section to the consideration of the arbitrators, and were laughed at for our pains by those luminaries. Now that the Judges have remitted the case, partly upon the strength of that very same clause, the arbitrators, may possibly begin to grasp the fact that the customs and prejudices of Mincing Lane are not the alpha and omega of commercial law. They are now ordered among other things to say whether a mixture composed according to the formula—take of citronella oil 3½ parts by weight, add 5½ parts of kerosene, mix (*secundum artem*), and flavour with 1 part of oil of lemon—constitutes fair merchantable oil of citronella. If they answer in the affirmative, the case may again be carried into court by Mr. Domeier; in fact, the law seems to put no limit upon the process of remission. A mistake in accepting or rejecting evidence, however, is a mistake of law, and may bring about the setting aside of the award; and it has also been decided that, when arbitrators obstinately or recklessly reject evidence which they are bound to consider according to the contract adjudicated upon, the award may be set aside.

We have commented repeatedly upon this case for the past two months, simply because the Mincing Lane brokers award appeared to us to strike at the root of honest trading. After the practical admission that the parcel of citronella oil now in dispute contained oil of lemon as well as kerosine it cannot be seriously maintained that the oil was imported in an adulterated state from the producing country, for the natives of Ceylon or India would hardly have had resort to oil of lemon. Hitherto, in the face of vigorous and ably-conducted competition from abroad, English essential-oil merchants and distillers have held their own mainly on account of the reputation of their oils for excellence of quality, and we think it of vital importance that anything which might diminish the reputation of this country in that respect should be guarded against.—*Chemist and Druggist*, April 25.

TOBACCO IN INDIA.

Notwithstanding all that has been written against the use of tobacco, from the day that King James the First of England penned his famous "counter-blaste" down to these times of later day saints, the solaceful herb has so recommended itself to the human race that it now ranks as the most widely distributed luxury on the face of the globe. When first introduced into Europe, the virtues of the plant were extolled with the wildest exaggeration, and it was supposed to cure almost every imaginable malady. Practical experience, however, soon proved the fallacy of this opinion, and when the inevitable reaction set in, every effort was made by kings, popes and emperors to stamp out a habit that was now denounced as morally and physically degrading. Laws were promulgated forbidding the consumption of tobacco in any shape or form under the penalty of severe and sometimes cruel punishments. In Turkey, in ignorance of the value of this gift of nature which so well suits the contemplative and some what taciturn character of its people, persons convicted of smoking were made a terrible example of by having their lips cut off, while others found addicted to snuff-taking were deprived of their nose. Even drastic measures such as these, however, proved as ineffectual as the remedy tried by King James of raising the tax on tobacco at once from 2d per lb. (the duty primarily levied on imports of the article from Virginia) to 6s 10d per lb. The fashion introduced by Sir Walter Raleigh spread from country to country with the rapidity and irresistibility of a prairie fire. The world's consumption of tobacco must be now something enormous; a French statistician about ten years ago estimated it at 4,480 million lb. annually.

Tobacco was introduced into India about 1605, the last year of Akbar's reign, by the Portuguese, whose influence in the East was then in its zenith. Here as in Europe its use was interdicted by those in power, and it is related that in Lahore, during Jehangir's rule, smokers had their lips cut off as in Turkey, although a milder penalty was sometimes imposed, *viz.*, that of being forced to ride through the town on a donkey with face blackened and turned tailwards. Even to the present day the luxury of tobacco is denied to Sikhs, Wahabis and certain Hindu sects by their religious guides, although indulgence in hemp and opium is permitted *ad lib.* Measures of repression, however, were no more successful in the East than in the West, and long ago the use of the fragrant weed became practically universal all over India. In 1888-89 the annual value of the sales and of the local consumption was estimated by Dr. George Watt at not far short of 25 millions sterling. The most important producing districts are Coimbatore, Godaver and Kistna in the Madras Presidency Rangpur and Tirhoot in Bengal, and Kaira in Bombay, but there is hardly an out-of-the-way village where the familiar patch of tobacco, grown as a garden crop, is not to be seen. In fact it is looked upon really as more among the necessities of life than a luxury, and there is a Behar proverb which may be taken as applying with equal force to the greater portion of India: *Khaine khae, na tamaka pie, Se nar batawa kaise jie*, *i. e.*, "show me the man who can live without either chewing or smoking tobacco." In Madras the area under cultivation, 125,000 acres according to the latest statistics has extended by about 50 per cent within the last ten years, owing doubtless chiefly to the growth of the cigar industry. The Kistna and Madura districts produce the famous *Lanka* leaf, used for making Trichinopoly cheroots. In Bengal, the crop which in 1893-94 covered an area of 730,500 acres, is grown more or less extensive in every district, but somewhat restrictedly for trade and export. From Rangpur it is despatched in some quantity to Chittagong for transport to Burma. In Behar, where cultivators have been said to derive the handsome profit of from R60, to as much as R80 per bigha for the crop, the produce is partly exported in carts to Nepal, to Hajeepur and other river ports in the district; partly bought up by travelling merchants who transport it by rail and river to the Upper Provinces and Bengal, and partly sold to purchasers from Gorakhpur—sometimes before the crop has been cut. Cultivation in Bombay fluctuates much; in 1887-88 about 87,000 acres were under the crop; in the following year a contraction of about 30,000 acres took place; while in 1893-94 the area had expanded again to 98,498 acres. In the Punjab the crop also fluctuates considerably, in 1883-84, 1886-87 and 1893-94, the acreage was respectively 85,400, 46,437 and 68,153. In the Jhang district, however, at all events, tobacco is regarded as most profitable of all crops. Neither the soil nor the climate of the North-Western Provinces and Oudh are favourable for the production of good leaf—at least above Ghazipur—still cultivation has been steadily increasing, and in 1893-94 the area was recorded as close on 86,000 acres. In Lower Burma, where all the inhabitants, men, women and children, smoke, nearly the whole of the tobacco produced is consumed locally, in addition to large quantities imported from Bengal and Madras. Very fine leaf has been grown in Northern Arrakan—pronounced by many people equal to the best imported from Turkey and Persia—whence derived it is not known, but the suggestion has been made that it was raised originally from Manilla and other foreign seed. By certain manufacturers at home, it has been supposed to have been produced from the seed of Havannah or St. Domingo tobacco; and according to their verdict both as regards colour and leaf it possesses excellent qualification for cigar-making.

But, generally speaking, English opinion on Indian tobacco has all along been unfavourable. The truth of the matter is that the great bulk grown in the country is consumed by the native population, whose taste and mode of using it require a leaf possessing strength rather than delicacy of flavour and aroma, while in order to produce what Europeans look upon as good standard, the crop demands more attention than the ryot, as a rule, can spare, and especially as regards the troublesome operation of curing. This accounts for the fact of our export trade in unmanufactured tobacco, valued in 1894-95 at about 10½ lakhs, showing instead of progression a considerable decline. It is unquestionable that the quality of Indian tobacco is capable of much improvement and within the past 12 years the limited efforts made in this direction have been fairly successful, especially in Madras, both in respect of the raw product and the manufacture; but unfortunately cultivators cling to the theory that it pays them better to produce a large growth of inferior leaf, which suits the native consumer, rather than a smaller quantity of superior leaf, for which in time they might expect to realise what would be to them a fancy price. Probably in order to extend appreciably the production of tobacco suitable for the consumption of Europeans and the classes of well-to-do natives who have learned to prefer it to the compound used in the hookah, the leaf would require to be cured and prepared by European agency, the mere cultivation being left in native hands. Following this principle and with due attention paid to the processes of curing, sorting, and packing; all points of great importance in striving for commercial success India might be expected, in time, to take up the supply of a far larger share of the world's demand for tobacco than falls to her at present. Undoubtedly there are powerful rivals in the field who have already secured the markets best worth having, but what has been done elsewhere may be done, here, and India is said to be situated more favourably for tobacco-growing than those European States where foreign varieties of seed have been successfully acclimatised. With this advantage, perfect freedom from excise duties and regulations and capabilities of improvement in market value, it seems to say little for enterprise in India that not only has our export trade in the raw article fallen away, but also that the trade in the manufactured article remains practically what it was 20 years ago, *i.e.*, confined to insignificant dealings with the Maldives, the Straits Settlements, Ceylon and Arabia, &c, the total value of which in 1894-95 was R34,382. On the other hand, imports of manufactured tobacco (other than cigars), valued in 1893-94 and 1894-95 at 17½ and 11½ lakhs respectively, have about trebled in value during the above men-

tioned period. The only satisfactory feature is the rapid progress made in the export trade in cigars, which during the past 10 years has increased from 250,921 lb., valued at R1,53,892. to 593,539 lb., valued at R6,08,914 (in 1894-95), the United Kingdom being the chief market. And yet it is notable that in spite of this great increase in the Indian export of cigars, of which we hear so much in connection with Earl's Court Exhibitions and the like, our *imports* of foreign cigars have nevertheless increased in value during the past decade from about 2½ lakhs to 4 lakhs. The Indian cigar is not therefore sole king in his own country; and if we were to take pipe and cigarette tobacco into the reckoning also, we should find that the value of the tobacco that comes into India is far greater than that of the tobacco that goes out. Altogether then our trade in tobacco cannot be said to be in a satisfactory position. State aid has been suggested, but Government has decided against it, and probably with wisdom. Such assistance has not been found necessary with indigo or coffee, and it was withdrawn in the case of tea at a stage when that industry had made much less progress than tobacco has done.—*Pioneer*, May 16.

PLANTING AND PRODUCE.

AN OLD COMPLAINT.—We publish elsewhere a letter from "Shareholder" complaining of the exclusion of reporters from certain meetings of tea companies. Attention has been called to this matter several times in these columns, but, with few exceptions, those companies which sinned in this respect at the time we wrote, continue to follow the same course. The shareholders in these concerns for the most part accept the situation. The directors therefore having become so accustomed to these private gatherings resent the idea of publicity, feeling perhaps that the public have no concern with their business, and that in graciously declaring a dividend when there is one to declare, and saying as little about it as possible when there is not, they are doing all that is required of them. Shareholders, we know, ought to receive dividends with all humility, and they should behave with due decorum when there are none, but for all that a domestic and family reading of the Companies Acts is not in harmony with the spirit of the age. Moreover, it is in the interests of investors and the tea industry generally that publicity should be given to the proceedings at these meetings. If a company or garden has not had a good year the fact is sure to leak out if adverse comments are made, and it is better that the reason why should be known and explained at the proper time and place. If, on the other hand, there is good news to give the shareholders, why suppress the account of the proceedings when they receive it?

GOOD ADVICE.—The American *Grocer* is impartial in its advice. It encourages the drinking of Indian and Ceylon tea, and it also tenders useful information on the subject of coffee. In a note which is "most sarcastic," it informs its readers that the true way to kill a coffee trade is "Keep package substitutes! Keep stale roasted coffee! Keep low grade coffee! Work everybody else's brand or blend but your own, and you will soon do very little business in coffee. On the other hand, make drinking quality the first consideration; style, the second. Have coffee fresh roasted at least every day, and, if the trade will warrant, 'fresh every hour.' Urge your trade to buy the highest grade. Grind coffee to order, but, better yet, induce customers to buy the whole bean, and to grind coffee as required. The coffee department ought to be one of the most profitable in the store. It attracts trade and serves to hold customers. There is more of pleasure for the palate in a cup of fragrant, good-bodied, well-made coffee than in anything which goes on the American breakfast-table. Good coffee covers a multitude of sins; exhilarates, gives tone to the system; fits one to enjoy life, for Bacon said: "It comforteth the heart and aideth digestion."

JAPAN AND ITS TEA TRADE.—Japan will probably soon subsidise a line to the Australian ports, chiefly with a view to the greater development of her tea trade. The first steamer of the new monthly service to Europe by the Japanese Company, Nippon Yusen Kaisha, is the "Tosa Maru," of 5,789 tons gross. The vessel was due to leave Bombay about the middle of April.

LECTURE AT THE SOCIETY OF ARTS ON TEA PLANTING IN DARJEELING.—Mr. Christison will read his paper on "Tea Planting in Darjeeling" before the Society of Arts on Thursday, the 14th instant. The chair will be taken at half-past four o'clock by the Right Hon. Sir Richard Temple, Bart, G.C.S.I., C.I.E.

"PRIVATE AND CONFIDENTIAL."

To the Editor of *The Home and Colonial Mail.*

SIR,—As a shareholder in several tea companies I protest against the policy pursued by some of these companies in endeavouring to keep their affairs dark.

I know that you have commented on this strongly, and I quite agree with your comments. Unfortunately the shareholders on some tea concerns are so weak in the knees that they submit without protest to a custom which is not only out of date in these days, but is distinctly detrimental to their interest.—I am, sir, yours, &c., SHAREHOLDER.

ACREAGE OF TEA COMPANIES.

To the Editor of *The Home and Colonial Mail.*

SIR,—Under the heading of "Market for Tea Shares" in your valuable paper of yesterday, I notice a paragraph stating that the Eastern Produce and Estates Tea Company is the largest single tea company in existence. Now, I beg to point out that this is incorrect,, as both the North Sylhet Tea Company, Limited, and the South Sylhet Tea Company Limited have much more than 11,000 acres each under cultivation. I should feel obliged by your kindly giving this fact publicity in your next issue for the information of all interested.—I enclose my card, and remain, yours faithfully,

London, May 2, 1896. J. HUTCHINSON.

ABOUT BANANAS.

The following account of Captain Baker, the Banana King, will be interesting to many people in the colonies:—

About twenty years ago a Yankee skipper knocking about with his schooner, called at some of the ports on the easterly side of the island. Bananas were plentifully offered him, and knowing the taste Americans were fast acquiring for the fruit, which was then scarce in their market, he began to study out a plan to convey the fruit in a sound condition to the United States. As soon as his arrangements were completed the shipment of bananas to America became one of the leading industries of the island, and is yearly growing in magnitude.

The name of this skipper is Captain Lorenzo D. Baker, of Boston, the president and tropical manager of the Boston Fruit Company. He is known as the Banana King, and resides at Bowden, a grand plantation on the south side of the island. The steamer "Bowden" was named after the captain's home. The Buckman Fruit Company, of Baltimore, is largely connected with the Boston firm.

Captain Baker's company owns the largest banana plantations in Jamaica, and controls the Wentworth coconut plantation at Port Maria. The company owns and charters twelve steamers, which run on schedule time between Jamaica and Boston, Baltimore and Philadelphia, carrying passengers and mails. In 1877 this great enterprise rolled up its sleeves and went to work to make, a new Jamaica. It owns 30,000 acres of land and has about 16,000 acres leased. Nearly 1,000,000 bunches of bananas are the annual shipments, besides 5,000,000 coconuts and vast quantities of allspice, oranges, coffee, cocoa and valuable woods.

The labour performed on the Company's plantations requires over 400 coolies and as many more negroes. Six hundred mules are always in service carrying

the fruit from the plantations to the shipping points along the coast. Eight hundred head of oxen have been employed at one time preparing ground for planting bananas cultivating the fruit already in the ground.

The company has 32 plantations under cultivation. Each has an overseer, and a superintendent is over all. President Baker's office and all the administrative departments are at Port Antonio. Telephone connection is had from the main office to every plantation, by which orders are sent to what point on the coast to deliver fruit and in what quantity. An electric plant light the wharves, offices and stables of the company at Port Antonio. Another enterprise which has been a blessing in an artificial ice factory. West Indian and Commercial Advertiser.—*Fiji Times*, April 4.

HUNASGERIA TEA COMPANY, LIMITED.

DIRECTORS REPORT.

The following accounts are now presented to shareholders, viz:—Balance Sheet shewing the financial position of the Company on 31st December, 1895.—Profits and Loss Account, for crop 1895.

It will be seen from the Profits and Loss Account that the weight of Tea sold in London during the year amounted to 316,808 lb.; this included about 2,000 lb. of tea made from bought leaf. The average selling price was 6.57d per lb., and the proceeds amounted to £8,720 19s. 8d., including that sold in Ceylon.

The crop of Cardamoms and sundry produce realized £48 15s 9d.

The total receipts from sales of produce thus amounted to £8,769 15s 5d.

The total expenditure for the year in Ceylon and London was £7,148 3s 5d., so that a profit is shewn on crop 1895 of £1,621 12s 0d.

It is proposed to deal with the above Profit as follows:—

	£	s	d
To the payment of a Dividend of 4% for the year	£909	2	5
To the reduction of Suspense Account	650	18	0
To be carried forward	61	11	7
	£1,621	12	0

By the above appropriation the Suspense Account will be extinguished, and profits will not therefore be again subject to reduction on this account.

The crop of Tea secured is satisfactory, the yield having been 400 pounds per acre against 347 pounds in 1894.

The season was favourable, but the increased crop is in most part due to more liberal cultivation, and it is believed that a continuance of the same system will still further improve the yield.

The Tea Market during 1895 ruled low, more especially for the class of Tea grown on Hunasgeria. The average selling price of 6·57d. compares with 7·36d. obtained for the crop of the previous year.

The larger crops now being dealt with necessitate increased factory accommodation; this is now being provided, and half the cost is included in the expenditure as given above.

A small Tea nursery has also been laid down, and the cost debited to the past year's expenditure; this is to provide plants for any extension of the Tea area that may be decided upon.

The cultivated area remains as under:—

Tea	789 acres
Cocoa	30 ,,
	819 acres

The Directors regret to announce the retirement of Mr. H. H. Potts from the Board owing to ill-health. Mr. P. C. Oswald has been selected to fill the vacancy.

Mr. Norman Stewart, a member of the Board, retires from office on this occasion, and, being eligible, offers himself for re-election.

Mr. John Sawyer, the Company's Auditor, also offers himself for re-election.—By order,

J. ALEC ROBERTS, Secretary.

29th April 1896.

THE DIMBULA VALLEY (CEYLON) TEA CO., LIMITED.

THE TRANSFER OF ELGIN AND BELGRAVIA ESTATES.

IN view of the confirmed and detailed information which the present mail brings of Sir John Muir's withdrawal from an untenable position in reference to the contract for the sale of the Elgin and Belgravia estates, the question may well be asked as to whether some change in our Island legislation is not required to prevent any such misunderstanding in the future. It is of the utmost importance that London and British capitalists generally should have no uncomfortable feeling that a bargain, and even contract, for the purchase of property, entered into in good faith in London, Manchester, or Glasgow, may be liable to repudiation in Ceylon. We think that all men of business will agree that what is good enough in respect of a sale contract for landed property in the city of London is good enough for the first of Crown Colonies; and the sooner, therefore, our local law is made to recognise the full force of such home contracts as we refer to, the better for every local enterprise which is dependent on British capital or the London market. If the law advisers of the Government are not prepared to go so far as to make English or Scotch Agreements, under the circumstances we speak of, binding legally in Ceylon, at any rate we may well ask that the the value of stamps required on preliminary Agreements (according to the existing Ceylon law) should be credited when the actual transfer takes place. As our law now stands, a preliminary Agreement for the sale of landed property has to carry the same value in stamps as the Conveyance itself—so that payment has to be made twice over for stamps to ensure the contract being carried out. Now we understand that in the Straits Settlements—and Chief Justice Sir W. Bonser, who was Attorney-General and lawmaker there, will be able to advise the Government as to this—the stamps on preliminary Agreements are credited in afterwards stamping the Conveyance. There can be no question that had certain precautions (beyond the mere Agreement) not been taken in the recent Dimbula-Sylhet case, there would have been a serious and prolonged controversy, and, no doubt, an expensive "case in Court" to the great detriment of the credit of Ceylon (among other things) in the estimation of business-men in the Metropolis and other large British cities; and surely it is to the express interest of planters and merchants (European and native) as of the Colony and its Government, that any cause for misconception of this kind in the future should be removed, as we trust it may be, by order of H. E. Sir West Ridgeway at an early date.

J. F.

THE INDIAN TEA ASSOCIATION.—The annual general meeting of the Indian Tea Association was held on the 27th ultimo at the Bengal Chamber of Commerce, Mr. G. A. Ormiston, Chairman, presiding. There was a large attendance of members, and Mr. H. C. Williams and Professor Haffkine were present by invitation. Speeches of considerable interest to the tea industry were made by the Chairman, the Hon. Mr. P. Playfair, C. I. E., Mr. H. C. Begg, Mr. A. Tocher, Mr. H.C. Williams, and others, the labour question being one of the principal subjects touched upon. Professor Haffkine also gave an interesting account of the results of his inoculations against cholera.

NOTES FROM OUR LONDON LETTER.

LONDON, May 8.

CEYLON TEA COMPANIES.

With this letter there is posted to you the reports of the Scottish Ceylon Tea Company [see page 12], and of the Hunasgeria Tea Company [see page 21]. The first of these two bodies proposes a final dividend of 10 per cent, making with the interim one paid, a total of 15 per cent for the year, free of income tax. In addition to this division 7 per cent has been paid on the preference shares, but £838 is set aside for depreciation on the Buildings and Machinery item, and £852 13s' 9d remains to be carried forward. The tea crop of last year was 667,049 lb. being 7,049 lb. in excess of the estimate. The Hunasgeriya report proposes a dividend of only 4 per cent for the year, but a sum equal to about another 2½ per cent is devoted to the extinguishment of the Suspense Account. The average selling price of this Company's tea had been 6.57d per lb., and the yield per acre 400 pounds as against 347 pounds in the year previous. 789 acres are reported as under tea, and 30 only under cacao.

In the report of the recent meeting of the Eastern Produce and Estates Company you will note the satisfactory statement contained in the speech of the Chairman that since this Company was formed to take over the business of the defunct Ceylon Company it has paid off £73,000 of the £195,000 of debentures. Perhaps few of the tea companies connected with your Island have had to struggle against similar conditions of difficulty as this one has had to surmount. The division of profits was hemmed in by restrictions of a most stringent character, and there were those who at its inception deemed that it would prove impossible to succeed against these. However, this has been achieved already to a very large extent, and ere long, thanks both to good management and to some degree of good luck, the shareholders may expect to reap the full benefit of their long waiting

INDIAN TEA COMPANIES.

Reports of several of the Indian tea companies have appeared this week, and may be contrasted with those of the Ceylon companies already sent you as to the results narrated. The Mungledye Company can only pay its dividend on its preference shares, carrying forward the small balance of £380. The Chardwar Company will pay 10 per cent dividend for the year. The Tinigri Company pays a dividend of a similar amount and carries forward £161. The Borelli Company cannot go beyond a 4 per cent dividend, but carries forward £3,063. The Southern India Estates Company is more lucky, being able to pay a dividend of 10 per cent.

Tomorrow will witness the opening of

THE INDIA AND CEYLON EXHIBITION

at Earl's Court. Before next writing it will probably be possible to record the impression of a personal visit to this. From all we outsiders hear, Ceylon is not likely to make a show adequate to her proper representation by the side of India. If this should prove to be the case, we must regret that any attempt was made to include the name of Ceylon in that given to the Show. Invitations to attend tomorrow's ceremony have been freely distributed among press representatives, and the *Ceylon Observer* will not be unrepresented at it.

PLANTING NOTES FROM HATTON.

DEAR "OBSERVER,"—Monsoon come down here on Sunday pretty well—rain 2·66, and yesterday 1·20. This brings our rain up to last year's quantity.

Those were rather interesting notes in your paper a few days ago from some old "fossil" on old Kadugannawa; but he might have given us his opinion why the old district went out so suddenly. Mamoty weeding and want of brains, I fear, was the cause. Your correspondent seems to think there is still a kick in the old "oss": if so, I would not mind having a shy at something with him if he is not "kelaveno potchi," which, I fear, he is when he can go back to Mariawatte being in coffee and a "nundi" A.L.C. being a contractor on the railway to Nawalapitiya. That must have been about the time Adam was a boy, and the writer of this in "swaddling clothes."

This has been a good year for leaf, but the auld cry "No labour" has been in every planter's mouth. Now the tune will change to "No work for those poor coolies."—*Cor.*

MARKET FOR TEA SHARES.

Thursday evening, May 7.

Though the official list does not, this week, show quite so many advances in quotations, the buying of nearly all the shares named in the list, as well as those not so quoted, continues on an increasing scale.

MINCING LANE continues very firm, and both Indians (of which the supply continues rapidly to diminish) and Ceylons have hardened in value.

CEYLON SHARES: C. T. P. Co.—There is nothing fresh to report excepting a small transaction in the 7 per cent. Prefs. at £18.

EASTERN PRODUCE AND ESTATES.—Business in the Ordinary £5 shares of this company is a particular feature in the Ceylon share market, and a large number of shares have changed hands at 5¼ ex div.; they now ask 5½.—*H. & C. Mail*, May 8.

THE AMSTERDAM MARKET.

Our Amsterdam correspondent writes on May 5th that 60 tons of Van Houten's best cocoa-butter were sold that day by auction with good competition at extremely firm rates, prices averaging 70.58c per half-kilo. Details concerning last week's Amsterdam cinchona-auctions show that the richest parcel of bark offered in sale was one of 11 bales crushed Ledgeriana, analysing 10·83 per cent of sulphate of quinine. It realised 40¾c per half-kilo. The principal feature of the sales was the excellent demand for fine druggists' quills, for which higher rates were readily bid than have been known for a long time. Good broken quills and root were also well completed for ordinary and medium quality, on the other hand, was quite neglected. The Java cinchona-shipments during April have been as follows:

	1896	1895	1894	1893
Amsterdam	lb.	lb.	lb.	lb.
April	419,000	615,000	515,000	649,300
January 1 to April 30	2,4 2,000	2.477,000	2,388,000	2,530,000

—*Chemist and Druggist*, May 9.

THE TEA MARKET

continues to rule very firm, imports (chiefly Ceylon) being on a small scale. The Clearing House transactions, backed by cheap money, point to present prices being maintained well into the summer months. The remnants of first crop China passing out of importers' hands sell at disastrous rates, but it is a misnomer to describe these teas as fine, whereas standard quality of strength, quality, and aroma would yet command remunerative prices. Deliveries continue on the most satisfactory scale for Indian and Ceylon, but not of China. Java Tea now comes in for a fair share of attention, especially where quality is conspicuous.—*L. & C. Express*, May 8.

PLANTING IN PERAK.

From the Matang monthly report for March, printed in the *Perak Government Gazette* of May 8th we take the following:—

On the evening of the 21st I went to Kampong Dew and went all round the Yun Seng coffee estate with Mr. Boyd, the Manager. It has been very well drained. Nothing is planted as yet, but there are some very fine nurseries of coffee plants which Mr. Boyd hopes to commence to plant out within the next fortnight.

On the 23rd, Mr. Boyd, who had come back with me on the 22nd, left for Sungei Tinggi to select a block of 640 acres of land for coffee cultivation for himself and Mr. Aylesbury.

On the 27th the Assistant Magistrate and Mr. Hamilton returned from Sungei Tinggi in the launch, bringing Mr. Boyd with them. The latter gentleman came to see me about the land which he has selected, and with which he seemed to be well pleased.

The opening of these estates at Sungei Tinggi will be a very good thing for the place and will, no doubt, give employment to many of the natives there, who are very poor.

TEA IN AUSTRALIA.

A moderate business has been done in China tea, sales being reported of 350 half-chests common at 4¼d to 4½d, a small line of fine panyong at 8½d, 150 half-chests common kooloo, 100 half-chests kooloo at 7¼d, 350 quarter-chests buds at 5d to 5¼d (besides a large parcel of buds) and 850 quarter-chests S.O. pekoe at 5¾d to 6½d Ceylon teas have been moderately active, sales covering over 700 packages at prices ranging from 6½d to 11d. At auction on Tuesday a catalogue of 282 half-chests and 829 quarter-chests China tea was offered, and sales were made of 282 half-chests common congou at 3¾d to 4d, and 655 quarter-chests common buds at 4¼d to 7¾d. At the auction sale on Thursday Indian teas met with keen competition. Some of the better grades realised an advance, while other grades realised full late rates. The quantity offered was 2,576 chests and 571 half-chests, all of which were sold as follows:—Orange pekoe, 591 chests and 173 half-chests at 6¾d to 9½d; pekoe, 1,638 chests and 229 half-chests, at 5¾d to 10¼d; pekoe souchong, 347 chests and 169 half-chests, at 5½d to 7¼d. Of Ceylon teas, 590 chests and 104 half-chests were offered, but the bidding for these was dull, and prices were slightly easier, especially on common grades and dustly broken pekoes. Sales amounted to 303 chests and 104 quarter-chests as follows:—Broken orange pekoe, 11 chests and 42 half-chests, at 9d to 11½d; broken pekoe, 183 chests and 62 half-chests, at 6d to 9¼d; pekoe, at 6½d; and pekoe souchong, at 5¾d to 6¾d.—*Australasian*, May 9.

THE AMERICAN TEA CAMPAIGN.

The London correspondent of the local "Times" writing by the last mail says:—

This week I have had the opportunity in several directions of learning something about the chances of successfully pushing Ceylon and Indian teas in the American market. My conversations have included those in the Indian as well as the Ceylon tea interest. More than one gentleman who has discussed the position of our staple with Mr. Mackenzie has given me all that could be remembered, and I have myself met your delegate more than once in Northumberland Avenue just as he was going into the Metropole and elsewhere. The dwellers in the States do not seem, unfortunately, to be the tea drinkers we Britishers are. The first-rate coffee to be procured generally in the States is as palatable as ever it was, from their infancy up, to a large portion of the cosmopolitan mixture that makes up the full total of the population of the United States. There are 10,000,000 Germans, 5,000,000 Scandinavians, Danes, and Poles, 3,000,000 Cubans, and 7,000,000 Negroes who don't drink tea; add the Red Indians and you get about half of the population non-tea-drinkers. Next we come to the green tea drinkers. There is a consumption of fifty million pounds of green tea in the States, and upon that consumption we are making no impression whatever. It stands before us a huge impenetrable wall, massive and unsurmountable. We have been more successful in the attack upon the fifteen or twenty million pounds of black tea consumed, and also upon the partly fermented teas. But it seems from what I hear, that Mr. Mackenzie leans more towards an endeavour to supply the American dealers and the American public with what they do want than by advertisements, expenditure and strong effort to make them take what they do not want. One of the grievances of the Uitlanders in the Transvaal is the quality of the dynamite they are forced to use. President Kruger has given a monopoly of the article to Dutchmen and Germans, and he grimly tells those complaining, and others whom it may concern, "Your dynamite requirements must be bent to the sort of dynamite my friends supply." Ceylon tea manufacture to obtain an outlet in America must be bent to the sort of tea the Americans require. Doubtless whilst such excellent profits are being secured from a certain manufacture, *i.e.*, of black tea, the planters of Ceylon will require some leverage before they will give time to opening up a green tea trade with America. The stimulus of necessity is not bearing heavily upon them at present. Sufficient to the day, perhaps, is the evil thereof, But if it is good enough for the Ceylon Tea Plantations Co., Limited, to look well ahead to a day that, perchance, may come when tea is down in the depths and coconut property jogs placidly along at a slow but steady pace, it ought to be good enough for the planting body to look ahead during the years of plenty and perfect itself in tea manufacture in every form that the markets of the world demand. There are a good many men here who can remember some few years spent in the endeavour to get Ceylon tea pure drunk by the masses. Examine the packed teas on the shelves and the loose tea in the canisters of the grocers of the United Kingdom today, and see how much of it is not "blended" tea. That endeavour was swimming against the tide. It was slow. Swimming with the tide is easier and quicker. I am told the difficulty of introducing Ceylon green tea would be far less than the task of getting our black teas into consumption.

THE UNCERTAIN QUALITY OF BRITISH-GROWN TEA.

The next difficulty is the objection the big buyers have to the breaks and uncertain quality of British-grown teas. You can quite understand that dealers who have been accustomed to place an order for next year's requirements, even up to 3,000 half-chests at an order, to closely follow what they are supplying to their connection, and to *get it*, view with dismay the idea of embarking in a Ceylon and Indian trade, and will not, unless forced to do so by the strongest pressure, raise a hand to taste the numberless samples of tea requisite to produce a regular and even blend.

GETTING TOO MUCH FOR THEIR MONEY.

One more trouble is the dealer's objection to pay something approaching 3d per lb. all round extra by adopting British-grown tea and yet get no better profit, for the retail price must not be altered. Unless forced by the strongest pressure he will not forsake the tea he gets the

best profit on. Naturally. And there is no blinking the fact that the old difficulty the pioneers here had to contend with, viz., the *strength* of the tea, at present militates considerably against the popularizing of British-grown teas. It was not until one of our Chancellors of the Exchequer, Mr. Goschen, I think it was, mentioned in his Budget speech the greater strength of British-grown tea and the loss to the Revenue by less being required for the tea-pot than China tea that people really comprehended extensively that less India or Ceylon tea would produce the same result in strength of liquor as the full quantity of China. The Americans have not got as far as this in their tea education, and there are still complaining of getting too much for money,

SHALL WE MAKE GREEN TEA?

If green tea were taken energetically in hand in Ceylon and India it is possible we jointly might displace ten millions out of the fifty millions at present consumed in the United States. That would help. Then the trade would not stop at America; there are other places that still require this class of tea, although it is dead in the British Isles. It may be said there are ten chiefs who control a large proportion of Ceylon tea estates—Messrs. Whittall, Rutherford, Starey and others. It is to them we must look to initiate a commencement in green tea manufacture. In the field of green tea in the States there is a chance, but there seems no hope of displacing the article otherwise than as I have indicated,

SMALL BREAKS AND UNEVEN SAMPLES.

Regarding small breaks and uneven samples the Americans simply will not now buy Ceylon teas on sample, because the bulk, they have decided, is never the same as sample. Small breaks they will not touch if they can help it. Messrs. P. R. Buchanan & Co., who are shipping increased quantities, are doing what the Americans require, viz, selling from bulk. Mr. Larkin their Canadian representative, is now staying at the Metropole, London, and I hope to see him. He, I hear, will say that in Canada it is always Ceylon tea that is asked for; but what is supplied is three-fourths Indian. Why? Because there is no firm like Mr. Larkin's firm devoting itself to Ceylon tea interests. Larkin's hold mostly stocks of Indian tea, and there is no chance of buying Ceylon teas from bulk there. I have heard that a dealer in Canada stated lately he could have sold 3,000 chests more Ceylon had he had it. Why hadn't he got it. Well, "small breaks and uneven samples" stand in the way. The possible cure for this will be contained in some remarks on Indian tea below.

MR. BLECHYNDEN'S SUGGESTION.

Touching on over-production after discussing the above points, I was told that Mr. Mackenzie's conviction is that it is India, with its immense forest reserve, towards which we shou'd turn our eyes in this connection. Unless the Ceylon Government throws open the reserve of forest in Saffragam there is, he thinks, no great surplus over our present figures to be dreaded. He thinks this will not be a year of much increase in our shipments outside the United Kingdom. In 1891 there was a jump in the figures, 1892 almost stationary, 1893 jump, 1894 almost stationary 1895 jump, 1896, he thinks, will prove like 1892 and 1894. His idea is that 105,000,000 pounds will be reached for 1896.

I learn that the Indian Tea delegate is thoroughly alive to the disadvantages under which Indian and Ceylon teas labor, and is anxious that the obstacles which at present stand in the way of a better state of things shall be removed. The same facilities which American traders handling long lines of China and Japan teas enjoy, he is anxious shall be provided, at any rate in the teas he represents. He also has to complain of small breaks and of the impossibility of matching, without delay, any sample that may be sold out. It is the want of these facilities that is the greatest obstacle to large firms touching British India teas. Mr. Blechynden firmly believes that the enterprise and energy which have built up this great tea industry, will in time handle these obstacles and sweep them away. These large firms are accustomed to give orders on last year's samples. Each mark has its recognised standard and varies very little each season. Orders are booked upon prices quoted subject to market fluctuations, the importer taking the risk of the goods differing widely from standard. One traveller can thus book orders for hundreds of thousands of pounds. The trade thus in a great degree is in the hands of a few large firms. Disputes as to quality are by no means unknown, and many firms have retired from the business, out of heart with the wiles of the Chinaman and the Jap. But still the business is a great one and is conducted on large lines. This is impossible in Ceylon and India teas. "small breaks and uneven samples" keeping the business on a petty basis. To get over this obstacle to Indian tea being handled on great lines, I understand Mr. Blechynden is most anxious that an agency be organised in India to take the place of the packing houses of China and Japan, buying teas in Calcutta, blending and packing them to certain fixed standards, and thus opening out business upon the lines demanded. Factory blending on a small scale is useless. The confidence of the big dealers can only be secured by reliable standards and large supplies. Mr. Blechynden recommends a guarantee being provided that *the teas ordered would be forthcoming*, and is anxious that the Association should guarantee a certain sum, placed in the hands of a firm in New York to increase confidence which would be close at hand should the agency fail to carry out what it had undertaken and become liable to forfeit of the guarantee. Brands, as in Japan and China, would thus become well known, and the owners of the brands would only have to thank their own failure in matching teas to keep their brands level, if their reputation went down and claims were made. It is proposed that the I. T. Association should give a grant for meeting the first cost of the requisite plant and outfit.

A GIGANTIC BLEND.

Mr. Mackenzie, I understand thinks that the limited quantity of tea put up to auction in the Colombo market would not allow of such a plan being worked in Colombo. But it is very certain that what India does Ceylon will not long be behind in doing, and if India, by imitating the packing houses of China and Japan, begins to get long lines taken and repeat orders sent, Ceylon will find a means to do the same, even if it necessitated the throwing-open of Colombo free to the world to blend and pack in. "Keep up the quality" is a phrase that has become a too well-known cry here. I question whether it is fifteen years old and whether in the old days the grocer ever had to bother himself much upon such a matter at all. It may be that the millenium is at hand, that the lion and the lamb, the strong and flavoury, the poor and wishy-washy teas will lie peacefully side by side leavened up by the art of the selecting broker, and the discerning blender, into one regular and satisfactory whole in the mix-

ing machines and packing roans of Calcutta and Colombo.

MR. W. MACKENZIE AS THE SUNBURNT MAN.

The Brooklyn *Citizen*, in three columns, gives a capital account of sport and life in Ceylon and India, with illustrations, the object being all the while to deftly draw the attention of readers to the merits of our teas. The article is jointly the work of Messrs. Mackenzie and Blechynden. It is headed "Oriental Sport: the Sunburnt Man gives some Incidents of Elephant Hunts; Thrilling Charge of the Enormous Beasts." This is the sort of thing to catch the eye and make people read, especially with an enormous "King of the Jungles" taking up a good portion of the second and third columns. The Sunburnt Man" tells a lot of his experiences in shikar in Ceylon, but the main object is well held in view, and every reader having been beguiled by the heading and the illustrations into reading has absorbed a lot about British-grown tea before he has finished.—London *Cor.*, local "Times."

EASTERN PRODUCE AND ESTATES COMPANY, LIMITED.

The ninth ordinary general meeting of the shareholders of this company was held at Winchester-house, Old Broad-street, E.C., on Wednesday, April 19, Mr C. J. Lindsay Nicholson (the chairman) presiding.

The Secretary (Mr. Douglas R. Smith) having read the notice convening the meeting,

The Chairman said: Gentlemen, assuming that you will take the report, which has been in your hands for some time, as read, I will now proceed to make a few remarks upon the position of the company. I think I may say with confidence that the directors feel to-day that they come before you with a report which shows continuously improving features. We have had a year of some anxiety. Of course, naturally with all agricultural pursuits, we have had the anxiety in Ceylon of weather, and on this side we have had the anxiety which a large crop necessarily gives as to market; but I am glad to say we had had a bumper harvest in Ceylon, and at the same time, thanks to the intelligence of our superintendents, to whom you and we invariably, I am glad to say, are able to give a word of thanks, we have found a good crop, accompanied in Mincing-lane by a favourable appreciation of our marks. With a price of tea a fraction under 8d. it requires good marks. As I have often said to you from this chair, our instructions to our superintendents are, let us have quality and quantity if you like, but above all things give us quality. You, gentlemen, who take an interest, perhaps, in what the Chancellor of the Exchequer says may have been interested in the debate on the Budget by seeing what Sir Michael Hicks-Beach said as to Ceylon tea, that it appears to the Exchequer a matter of some anxiety whether Ceylon tea is not put rather on the more favoured nation clause, seeing that it is stronger than China tea, and therefore a cup of tea made out of it pays less duty than a cup of tea made out of China tea. That is an interesting compliment to our product. While on that subject, you may also have observed that he drew attention to the fact that the great speculation in gold mines during last year had caused a consumption of something like one million bottles of champagne. He added to that another curious statistic that the consumption of tea had increased by 10,000,000 lb., so it is evidently the case that for every excess bottle of champagne we may congratulate ourselves that ten pounds extra tea are consumed. Well, gentlemen, those are little matters which are somewhat interesting. We believe you are served in Ceylon by a contented and happy staff, and our experience is that we have always application from men of good position and in every way eligible for appointments in the service. I attribute a great deal of the contentment of our staff abroad to the care and assiduity in the framing of the furlough rules, by my friend, Mr. Cameron, the managing director, and to Mr. Starcy for his exertions in Ceylon. The progress of this company, as you will notice, has been almost unprecedented in the few years we have been connected with it. It has increased tenfold, and at the present moment I am happy to say our shares are at a premium. (Applause.) I saw in a paper the other day that this is the centenary of the occupation of Ceylon. Bombay and Madras were well known and inhabited by settlers some years before 1796. I think that in the past century Ceylon has well developed herself, and we may be very proud of the little island both in a commercial and planting sense. You will see, if you refer to the report, that the acreage of our tea is 10,347 all in good cultivation. The estimated yield for 1896 is 3,458,000 lb., against 3,276,000 lb. last year. There is no doubt that the secret of success lies in the fact that we must not go to sleep. With the increase in the production of tea there is the necessity to look out for markets, such as Russia, the colonies, and America. (Hear, hear.) India is not a competitor; she should be with Ceylon a sister, and together they should endeavour by friendly rivalry to let the established value of Eastern tea be well known. Wherever it is known we may be sure it will make a successful home. Our accounts are so clear that anyone who runs may read. On our capital we have earned £46,000; we have paid interest, £7,500; we have paid debentures £7,900; we have put to reserve £5,000; we pay in dividends £15,000; and we carry over £10,000 in round figures. Since the commencement we have paid off £73,000 of the £195,000 debentures, and we have reduced the rate of interest on the remainder from 6 to 4½ per cent., and to-day, after paying you gradually increasing dividends, we pay you 5 per cent. At the same time the board are convinced of the propriety of continuing the prudent course of speedily paying off the debentures. (Applause.) We commenced with that determination, and we have continued it. While continuing to discharge the debentures freely as circumstances will allow, we look forward with confidence, unless something unforeseen happens, to being able to give you increasing dividends. (Hear, hear.) There may be many matters on which I have not spoken and on which you may desire to ask questions. These I shall be happy to answer to the best of my ability. I beg now formally to move—"That the report of the directors, dated April 16, 1896, be received and adopted, and that a final dividend at the rate of 2½ per cent. on the capital paid up on the preferred shares, and at the rate of 3½ per cent. on the ordinary shares, for the year ending December 31, 1895, be declared and made payable on the 4th May, 1896." (Applause.)

Mr. Ralph A. Cameron (managing director): In the remarks I propose to make in seconded the resolution I shall necessarily be going over more less familiar ground, but there are a few matters which I always like to bring before you in comparing one year with another. The increase of crop in 1895 was about 500,000 lbs., or nearly 20 per cent. over that for 1894. The yield per acre on tea in bearing was 356 lbs., as against 303 lbs. the year before; although 1894 was somewhat short, still apart from that the increase is very satisfactory. The net price per lb. was rather over ¾d. less than in 1894, but this is more than compensated for by the increased yield and the lower cost per lb. for production consequent on that increase. So far as we can judge, we have no reason to fear or expect any further considerable fall this year. As regards extensions, you will observe that we continue to add about 250 to 300 acres a year to our cultivated area. No doubt there is more land that could be planted, but we are obliged to regulate it to a considerable extent so as not to interfere with the labour force on our estates. I still think, however, that we might do more in this direction, and when we see our way to do it we shall no doubt take it in hand. We have about 2,000 acres of available land which I think is more or less fit for tea cultivation. Taking into account

a part of the 9,072 acres now in bearing, but not at maturity, and the continuous yearly additions to which I have referred. I think we may look forward to steadily increasing yields for many years to come. The general features of the trade are decidedly satisfactory. There has been a further considerable increase in 1895 in the quantity of tea from Ceylon exported direct or re-exported here to other countries, the amount being 20,000,000 lbs., as against 14,700,000 lbs. the year before, and there is every indication that this diversion to new markets will go on and increase. The workshops which we told you last year we were about to establish have been started, and we have reason to believe that they will develop satisfactorily. The increase in the agency business has continued to answer our expectations this year, no less than 12,000,000 lbs. of tea having been shipped by the company, including that from our own properties. I do not think there is any other point of detail that I need touch upon, but with regard to our general position I can only say that the large reduction of the debenture debt, and the favourable arrangement made in regard to the balance remaining, coupled with the increased profit earned, have fully justified the removal of some of the restrictions as to the disposal of the profits, which in the earlier stages of the company's existence were both desirable and necessary. It must not, however, be overlooked that our present sound position is largely due to the observance of those restrictions, and whilst it is now right that there should be more freedom in dealing with the profits, it is equally, as heretofore, for the interests of the shareholders, that liberal provision should be made for extinguishing the debenture debt, and providing for all contingencies by substantial additions to the reserve fund. In conclusion, I will ask you to join the board in expressing our thanks to the managers of the estates and the staff in Colombo and London for their zealous and efficient services during the past year. (Applause.)

The resolution was when put and carried unanimously,

Mr. David Reid proposed the re-election of Mr. C. J. Lindsay Nicholson and Mr. Ralph A. Cameron as directors. He said the remarkable progress of the company was more eloquent than anything he could say in support of the resolution.

Mr. Christopher B. Smith seconded the motion, which was unanimously agreed to.

Mr. Broad said there was one resolution he wished to move which he thought would commend itself to all the shareholders present. It was, "That the remuneration of the directors, other than that of the managing director, be increased by the sum of £250, dating from 1st Jan. last." Those who had been in the company as he had been from the commencement would endorse everything that had fallen from previous speakers as to the management of the company. The successful conduct of the company's affairs was due to the managers abroad and the directors here, and it gave him very great pleasure to come and move this resolution.

Mr. Wm. Gaviller, in seconding the resolution, remarked that the directors not only deserved great credit, but something more substantial for having put the company on a sound and prosperous footing.

The resolution was carried unanimously.

The Chairman returned thanks, and stated that what the directors appreciated most was that the proposer of the resolution was one who had done more for the company than perhaps the board themselves. The advice he had given them had much to do with the present success of the company. (Applause.)

On the motion of Mr. Earnshaw, seconded by Mr. Rich, Messrs. Welton, Jones, and Co. were reappointed auditors of the company for the ensuing year.

Mr. Ferguson proposed a vote of thanks to the chairman, directors, and staff of the company both at home and abroad. He said he had lately returned from Ceylon, where a great deal of interest was taken in the company and in its steady prosperity. No company could have a better manager than Mr. Stacey, nor a better staff than those who worked under him. He fully endorsed the policy announced by the chairman and the managing director of paying off the debentures.

Mr. Welton seconded the motion, which was cordially adopted.

The Chairman briefly acknowledged the compliment, and the proceedings then terminated.—*Money Market Review.*

TOBACCO IN CEYLON.

A correspondent who has had a long practical experience of the cultivation and manufacture of tobacco in India, and who was recently in Ceylon on one of several visits he has paid to our Island, sends us the following remarks on the cultivation of the tobacco plant in Ceylon:—

Much has in recent years been said for and against tobacco cultivation in Ceylon. In 1887 and 1888 tobacco was the great topic. It was then demonstrated that the plant could be cultivated profitably, and sufficiently so, to induce a number of local men to join in a venture for this purpose. Land was purchased, buildings were erected; and everything looked bright and well for the future. Unfortunately, however, the liquidator completed the management of the Company.

It is difficult, without sufficient data to go upon, to venture an opinion as to the reason of the Company's failure to become a profitable concern, but it seems that the main cause was excessive expenditure brought about by excessive expectations that unfortunately were not realized.

Man must walk before he can run; and the fact of the Ceylon Tobacco Company's not being the success its promoters anticipated does not in any way prove that Ceylon cannot produce good leaf. On the contrary, the history of the Company and previous ventures clearly shows that good and excellent leaf has been and can be produced, and that large profits can be derived.

Some of the leaf from Ceylon has fetched as much as 3s 10d per lb.; and if the Island could do this in 1888 it can do it again in 1896. 3s 10d per lb. would give the Ceylon planter a larger profit than 4s 10d per lb. to the Sumatra planter: the expenses of the latter are quite out of comparison with similar outlays in Ceylon. It costs the Sumatra planter somewhere about 1s 6d per lb. to produce his leaf; it should not cost the Ceylon planter more than 3 as. 18¾c. per lb. It therefore follows that the Ceylon man can afford to be satisfied with a much smaller profit for his outturn and still make a very satisfactory return upon his money, though he may not be able to produce Sumatra leaf.

The essentials to successful planting are suitable land, climate and labour. Ceylon certainly has the first two, if not all three essentials; the question of labour in any case as far as Ceylon is concerned, is no great factor: if local labour is not obtainable, imported Indian agricultural labour is, and the difference of cooly cannot be very much more than paid in India.

The soil required is a good friable volcanic loam, the climate a moist warm temperature with reliable and regular seasons of rain and sunshine. Gentle undulating land capable of perfect drainage to enable rapid filtration through the roots is the most suitable.

Given all this, and Ceylon does give it, intelligence, commonsense and practical knowledge do the rest to make tobacco one of, if not the most profitable product in the Island.

It may take a season or two to determine the best jât of seed suitable for the country; but in any case a fair crop of whatever seed should cover its own expenses, always provided, that such are within reasonable limits and the acreage opened sufficiently large, coupled with judicious and practical management.

In a private letter our correspondent says:—"Personally I have the greatest faith in Ceylon as a tobacco-producing country; and it were a

pity if an industry of such great possibilities of tobacco were allowed to drop out of sight and mind for the want of enterprise (and Ceylon men do not lack this as a rule) and practical knowledge." In the Planting Review prefixed to our Handbook we have summarized the information available to the end of 1895 on the subject of tobacco in Ceylon. In his latest report on the Ceylon Botanical Gardens Dr. Trimen does not refer to tobacco; and the Blue Book for 1895 has not yet reached us: so that we are unable to say whether the cultivation of the plant is still advancing in Ceylon. Perhaps some correspondent can inform us on this point. There is no question that tobacco is a paying product; but it is also terribly exhaustive of the soil, which needs to be a rich one to stand the strainon it.

INDIAN PATENTS.

Applications in respect of the undermentioned inventions have been filed, during the week ending 9th May 1896, under tho provisions of Act V of 1888.

Extract from Rhea bark.—No. 150 of 1896.—Harry Stafford Beyts, merchant and commission agent, residing at 97, Elphinstone Circle, Bombay, for an extract from *Rhea* bark.

The fees prescribed have been paid for the continuance of exclusive privilege in respect of the undermentioned inventions for the periods shown against each :—

For improvements in machinery for obtaining fibrous material from ramie and other plants.—No. 193 of 1891.—Mr. E. C. Marc's invention for improvements in machinery for obtaining fibrous material from ramie and other plants. (Specification filed 8th February 1892.)—*Indian & Eastern Engineer*, May 23.

COFFEE AND TRADING IN "OPTIONS AND FUTURES."

LORD STANLEY OF ALDERLEY rose to call the attention of the House to the alleged depreciation in the prices of wheat, cotton, wool, silver, coffee, and other agricultural products, owing to an international system of trading in "options and futures," representing fictitious or non-existing produce. He said that some 25 condemnatory resolutions had been passed in the last two years by our leading agricultural and other societies. Further, owing to the reports of the special commissions held in the United States, Germany, and Belgium, a Bill for suppressing these systems was twice read in the United States House of Representatives last December, and a similar Bill passed the same House in 1894, while a committee of the German Reichstag reported last month in favour of total prohibition of them; also in Belgium a Bill to deal with this subject had been framed. He asked her Majesty's Government why Mr. Charles W. Smith's evidence, prepared in 1893 and 1894 at the request of the Royal Commission on Agriculture on this subject, had been suppressed after having been printed, and whether it would be laid upon the table of the House; also a translation of the articles published on the same subject in the *Journal de l'Agriculture*, by M. Alfred Paisant, President of the Civil Tribunal of Versailles; and he further
5·0 asked her Majesty's Government how it was that, after hundreds of failures due to these systems hardly one had been brought before the Bankruptcy Court for fear of exposing the system; and whether her Majesty's Government would appoint a Select Committee to take evidence on the subject. 5·30
The noble lord formally moved for papers on the subject.

THE EARL OF DUDLEY.—I do not think that the matter which has been brought forward by the noble lord is one which calls for any action by Parliament at the present time. It has been discussed pretty freely by many commercial bodies throughout the country, and, although it is perfectly true, as the noble lord says, that some of those commercial bodies have passed resolutions in favour of legislative action, still, on the other hand, the Associated Chambers of Commerce, at both their last two conferences, have refused to bind themselves in any way to such an expression of opinion. Moreover, the matter has been brought forward by Mr. Smith, a gentleman who has taken a leading part in this question, before the Central Chamber of Agriculture on more than one occasion, but that chamber has not seen fit to make any representation to the Board of Agriculture. The Agricultural Commission have had before them evidence bearing on this question, and they will no doubt deal with it in their report. Under these circumstances I feel sure that your lordships will not feel inclined to adopt the suggestion of the noble lord and appoint a Select Committee to inquire into this subject. The noble lord has drawn the attention of the House to the alleged depreciation in the price of certain products owing to the system of what is called dealing in "futures" or "options." Of course, there can be no doubt that there has been a very large fall in the price of some of the products to which the noble lord has referred, but I venture to think that it is by no means, proved, even after the speech of the noble lord, that that fall in price is in any way due to the system of which he complains. To say that price is governed by the laws of supply and demand is merely to use a truism, but it is, I believe, a fact that that law holds good even in the speculative market, and that the unanimous opinion of the best experts is that the price in those markets follows and does not lead the price dictated by the laws of supply and demand. In fact, they are of opinion that this system of dealing in "futures," instead of deteriorating prices, rather tends to equalize them and to counteract the fluctuations that always must exist. The noble lord refers, in his question, to coffee as one of the products the price of which has been depreciated by this particular system. My information, however, is totally at variance on that point with that of the noble lord. Although I understand that it is perfectly true that this system enters very largely into the coffee trade, and that, in fact, the coffee trade is to a great extent carried on in that way, yet coffee happens to be a product the price of which does not fluctuate and which has not depreciated of recent years. The circumstances of coffee in particular, therefore, point to a totally different conclusion from that drawn by the noble lord. But, even if the arguments of the noble lord were sound, and even if one had reason to believe that this system of gambling had depreciated prices, I very much doubt whether it would be possible to check it by legislative action. The noble lord has referred to the many attempts that have been made chiefly by Mr. Smith and others, to distinguish between purely legitimate speculation and gambling enterprise, but all those attempts to differentiate have failed, and I doubt very much whether it would be possible to draw any distinguishing line of that kind in an Act of Parliament, without running very grave risk of hampering trade and checking legitimate enterprise. The noble lord also referred to several attempts which had been made by foreign Governments in this direction, but in no single instance have those attempts been successful and no Bill drawn with this object has as yet passed into law, and I understand that only last month an anti-option al Bill was thrown out of the Agricultural Committee in the House of Representatives at Washington. With regard to Mr. Smith's printed evidence, which the noble lord seems to think has been suppressed, I believe what really took place was that Mr. Smith prepared a *précis* of the evidence which he intended to give before the Agricultural Commission, and he was cross-examined upon that *précis*, and that it was not published for the very good reason that it is not usual to publish a *précis* of intended evidence. With regard to the last point referred to by the noble lord, the Government have no information that the proceedings in bankruptcy do not include as large a proportion of failures by gambling in "futures" as by any other cause, and the reason that they are not more frequently heard of is probably because few of such failures in proportion take place. The translation which the noble lord asks for does not seem to the Government to be one which can rightly be put on the table of this House.

Lord Stanley of Alderley said he did not wish to be understood as showing any want of courtesy or respect to the noble earl who had just replied, but he did object to have an answer on a matter of agriculture by the Board of Trade.

The Marquis of Salisbury.—On the question of the distribution of duties, I would like to point out to my noble friend that undoubtedly a question of buying and selling is a matter for the Board of Trade and not a matter of agriculture. The buying and selling of corn is not an agricultural act.

The motion was by leave withdrawn.—London *Times*, May 2.

THE ROASTING OF COFFEE.

TO THE EDITOR OF THE "STANDARD."

Sir,—With reference to the statement made by the Chancellor of the Exchequer in his recent Budget, to the effect that the annual decrease in the consumption of coffee, and its increasing disfavour with the public, arises more or less from the inability of an ordinary Englishwoman to make a decent cup thereof, it may be well to note that professional observation (and bitter personal experience), extending over half a century, has led me to the conclusion that the true cause of the relatively increased preference for tea, with its deleterious constituent tannin, will ultimately be found to depend, not on the incompetence of the English housewife to properly make coffee, but on the over-roasting of the berry by the trade coffee roasters, with a view to impart a deep colour, and apparent, but factitious, strength to the infusion when made.

During the process an empyreumatic product is generated, which causes such highly-roasted coffee to disagree with the stomach, and renders dyspeptic persons unable to indulge in it, in consequence of the heartburn and flatulence it produces. If the public were candidly given to understand that highly-roasted coffees, though imparting a deeper colour to the decoction or infusion, are *de facto* less strong, with a corresponding loss of the true aroma, than the lightly-roated berry, coffee would ere long resume its place as one of the national beverages, and the public and the Exchequer be alike benefited.

I am, sir, your obedient servant,

May 1. PHYSICIAN.

THE CARBOLIC CURE FOR LEAF DISEASE.

Sir,—I notice in your issue of 9th May, in a letter from a Queensland correspondent, an account of the carbolic cure for leaf disease. This so-called remedy was started as long ago as 1881 by a Mr. Storch of Fiji and attracted some attention in Ceylon, but did not meet with all the success that was claimed for it. That there is something in it, I am inclined to believe It would be interesting to know to what extent it has been tried in India. In theory the vapour arising from the acid is supposed to kill the spores, and prevent their germinating. I will give you my experience of it in 1893-94. The first year I experimented with an acre of coffee, lightly shaded, that had in previous years come in for a strong dose of the disease yearly. I started the process in July and charged 35 tins placed 6 trees apart, with a solution containing 10 per cent. of Calvert's No. 5 Carbolic Acid, charging them about every 10 days with a 5 per cent. solution. The tins holding about ½ a pint each were protected from the rain by an umbrella-like cover soldered on about 2 inches above the tin. I kept this up till February and conducted this first experiment personally. During this time most other parts of the estate had leaf disease during some months of the year badly, the experimental acre alone keeping remarkably clear though not entirely so from it, but the very slight attack it did have quickly disappeared with the result that that acre gave about 15 cwt of crop the following year. I was so pleased with the result of the experiment that the following year I tried it over 25 acres, but whether from the trees bearing heavily this year (averaging 8 cwt. per acre) or [illegible] reason the result was disappointing and certainly did not keep off the disease except from trees under shade. I then gave up the treatment. The cost for about 8 months including the outlay on tins was under R10 per acre.

As I stated in my letter of the 8th January, if a cert in cure could be obtained for leaf disease, it would make coffee cultivation comparatively easy, and ensure crops without such a lavish expenditure in manure as is now necessary, and I undestand it has been combated successfully in certain instances by other methods.—PLANTER OF 20 YEARS' EXPERIENCE. —*Planting Opinion*, May 23.

BROKERS AND ARBITRATION.

The recent judicial decision in the case of Domier *v.* Treats has caused much searching of heart among the members of the General Produce Brokers' Association of London. At present all drugs changing hands in Mincing Lane are bought and sold subject to certain stringent conditions framed by the Brokers' Association in the interest of its members. Theoretically, it is, of course, open to a buyer and seller to make a contract subject to any conditions upon which they may be able to agree, but in practice there is no escape from the one official contract-form. It is fair to say that, upon the whole, the system works well, except for a single, but most important clause, which refers to the settlement of disputes. Under that clause all disputes must be referred to arbitration in accordance with the rules of the Association, each party appointing an arbitrator, who must be a broker and a member of the Association. If the arbitrators disagree, they select another broker as umpire. There is an appeal from this first set of arbitrators to the committee of the Association; but in no case is it possible, under the rules to appoint as an arbitrator a non-broker, however impartial and experienced. It has hitherto been quietly assumed that this Mincing Lane Court of Arbitrators constitutes a kind of legal *Imperium in Imperio*, equal to any regular court of justice. Baron Pollock and Mr. Justice Day have somewhat rudely dispelled this delusion, and the brokers now desire to re-cast their contract-rules so as to prevent future reversals at law of their decisions. With that object in view the Association has issued the following circular-letter to its members:—

GENERAL PRODUCE BROKERS' ASSOCIATION OF LONDON.

Established 1876.

B Staircase,
Commercial Sale Rooms,
Monday, 27th April 1896.

DEAR SIRS,

It having become necessary to alter Rule VII. (the rule governing the arbitration-clause in the contracts) on the back of the Contract Forms issued by this Association, so as to conform with present requirements, on behalf of the Committee I beg to hand you proof copy, showing the alterations which are proposed, and I shall be glad if you will give the same your careful attention and perusal.

Should you have any suggestion to make, please let me have it within seven days as the Committee propose to call a General Meeting to confirm the new form.

(Signed) R. J. HOSSACK,
Secretary.

So far as we can make, out the only important alteration which it is proposed to make in the rules is to substitute words to the effect that the decision of the arbitrators "shall be irrevocable, and it, and the award to be made in pursuance thereof, shall be enforcible under the provisions of the Arbitration Act, 1889," for the present wording, "Any award . . . shall be absolutely final and binding on both parties, and this submission and such reference shall be subject to the provisions of the Arbitration Act, 1889." What the produce brokers can hope to gain by substituting a declaration of irrevocability for one of absolute finality we fail to understand. The law remains, no matter what solemnity of asseveration the brokers may resort to, and the law, as was shown in the citronella oil case, is by no means favourable to the occult influences that notoriously pervade the air of Mincing Lane arbitration rooms. The proposed

substitution of tweedledum for tweedledee is only another instance of the reactionary tendencies of the Brokers' Association. For years it has been a grievance with the vast majority of the Mincing Lane drug merchants that only brokers are eligible as arbitrators. It is notorious that disputes constantly arise in which the presence of a merchant, a manufacturer, a lawyer, or an analyst upon the Arbitration Board would be of great advantage; and we hope we shall not be thought wanting in respect for an eminent fraternity if we hint that brokers are not always possessed of a reasonable elementary knowledge of the articles upon which they are called to arbitrate. Furthermore, the Mincing Lane organism is complex. There are wheels within wheels, and it is whispered that there have been cases in which disputants were merely "men of straw" the brokers whom they appointed to attribute on their behalf, or *vice versa*. For these and many other reasons there is a widespread distrust of the present arbitration system, and the sooner the oligarchy that controls it opens its doors to some of the Mincing Lane "Uitlanders" who do the bulk of the business, but are now without voice in the settlement of their "undoubted grievances," the better. We are, therefore, glad to hear that the London Chamber of Commerce propose to call a meeting of members connected with the drug-trade to discuss the arbitration question, and we urge all those who desire a fairer way of settling disputes to be present at that meeting.—*Chemist and Druggist*, May 9.

ORANGES IN CALIFORNIA.

The Los Angeles *Saturday Express* of California had in a recent issue a report of a visit to, an interview with, a well-known Californian orange grower, at his orchard in Duarte. Mr. Thomson is the originator of the 'improved, or Thomson, navel orange—a fruit that is fast supplanting the old navel. It has all the good qualities of the Washington navel, the Mediterranean sweet, the St. Michael and the Malta blood. It has a delicious flavour, a thin skin, a delicate colour and the best shipping quality. The question of how this new variety was produced brought out an illustration by Mr. Thomson. Whipping out a pruning knife, he cut two buds and a branch from a tree. He cut the buds in half, united the two halves and placed them under a slit in the bark.

'There you have it,' said he. 'I took the buds from two varieties and made them grow; did the same thing with two other varieties, and they grew. Then I took the buds from these new products and did the same thing with them. The result was a combination of all the four varieties of oranges.'

'Orange trees are as peculiar as people,' said Thomson; 'they have habits and moods and dispositions the same as individuals."

As an illustration he pointed out one tree that always bore fruit more abundantly than those right around it, though it did not differ from the others in appearance and the soil was the same. Another three bore fruit of a richer colour than its neighbours, yet the conditions seemed no different. The orchadist told how fast the trees developed, and he pointed out trees loaded with fruit that had been budded less than two years. The branches were weighed down with the golden spheres, and the oranges were bright and clean as though polished at a dago fruit stand.

'Will there be much development in the orange in the future?' was asked.

'Just as much in the next twenty years as in the past twenty" was Thomson's reply. While he confessed he had gained some experience in his work, he freely admitted that others who came after him would add to the quality and character of the citrus fruit.

All this time Thomson picked specimens and loaded up his visitors. Everybody was weighed down with the best in the orchard. The Ohio girl, who just a month ago begged for the privilege of picking just one orange from a tree, that she might bring back East of the exploit, was asking to be relieved of her load—that is, she expressed herself as well as she could between mouthfuls of the delicious fruit.

'How much did you make last year?' the Monrovia editor asked Thomson.

'From seven acres I sold 4,000 dols. worth of fruit and prices were just half what they were any previous year.'

Last year Thomson sold grafts of his new navel at 2·50 dols. each, and the previous year they were in demand at 5 dols.

'Some people say my new variety is no better than the old; but why do they pay me ten times as much for the grafts if that is the case?'

Nobody tried to answer, for it was not necessary.

B. C. AFRICA: CURRENT CHAT.

It is calculated that there are 1,750,000 plants in the Cholo District alone.

Mr. Bradshaw's crop is estimated at about 20 tons parchment.

Mr. White (Cholo) has planted out 100 acres this season.

Mr. Livingstone at Magomero has planted out about 70,000 plants this season Pride of India has been planted thirty by thirty as a shade tree.

Mr. Mitchell at Namiwawa has planted up about 60 acres. Now that his assistant—Mr. Greenshields, —has arrived, Mr. Mitchell will proceed with the opening up of his Palm Stream Estate.

Mr. Israel has about 150 acres planted out at Chipande, Chiradzlo. He has partly removed his maiden crop.

We hear that Mr. Keiller has also partly stripped off his maiden crop as he was afraid of his bushes overbearing.—*Central African Planter*, April.

DR. WATT'S REPORT ON WHITE ANTS.

(COMMUNICATED.)

If the remainder of Dr. Watt's notes on pests that infest the tea bush are of as little value as those on white ants, the tea planting community will have derived very little benefit from his visit to the tea districts, and it is high time that an expert should be appointed to be controlled by the tea industry itself alone. Your Hare Street contemporary, no doubt, holds a brief from Dr. Watt to echo his trumpet on subjects, regarding which its portly proprietor can know but little, if anything, beyond the destruction of a few office almirahs! I doubt exceedingly if he ever saw a tea bush growing, except, perhaps, in the glass case in the Crystal Palace. Some time ago I ventured to say, that all those supposed scientific reports amounted to very little in the long run, beyond affixing an unpronounceable name to the particular pest enquired about, and this chapter on white ants bears out all I wrote. There are very few planters, one would think, who could not have answered the question he puts, Whether they will attack "living as well as dead wood"? At any rate, there is seldom a day but evidence is put before them, and it is their own fault if they don't grasp what the eye sees. With regard to remedies, one of them, that the bushes should be pruned up the stem for a space of three or four inches, carries absurdity on its face, as every planter aims at getting a large number of stems instead of one, so that the sap may flow freely. The tendency of the indigenous tea is to run up into a tree, and in order to stop this as much as possible a bush has to be pruned in its infancy, and if the bush still persists in attempting to become a tree, the recourse is to what is known as "collar" pruning, of which a great deal more is done in Assam proper than in Cachar, Sylhet or the Doors. The reason of this is, most probably, that the indigenous variety was first favourite in planting out new gardens in Assam, many years before it become the rage in the other districts. Here then, we have a remedy recommended against all laws of nature, and without any consideration as to after results to the plantation. Many practical planters will, no doubt, have observed that if an indigenous bush has been nursed in collar pruning and has only the single stem recommended in the report, that if allowed to go on for a year or so with ordinary light pruning, strong

young shoots will of their own accord spring up from the present single stem an inch or two beyond ground level, nature clearly pointing out that the natural flow of sap was stopped in some way and the old stump or stem, unable to perform its functions, had thrown out below the surface, when the bark was soft, a young generation, strong and vigorous and able to do the appointed work. With regard to using the red paint, which he says is so effective in the Gondul State, how is this to be applied when white ants will eat their way right up the stem of bush, and there is no outward sign that any damage is done at all, the first indication being the drooping of the leaves, and a very few days after this appears, the bush will topple over and disclose the stem as nothing but a shell? I have known many experiments made to prevent this, and hitherto without doing any good. Kerosine oil has been suggested and tried, but without efficacy, though the soil all round the roots stank of the oil months afterwards. With regard to the different kinds, there is little doubt but that two distinct *jâts* (to use a Hindustani word) work, and there is no doubt that one of these is much more destructive than the other, but this is no new discovery and we are not much "forrarder" than we were. The large *tumuli*, mounds which one *jât* raises, makes excellent material for top-dressing, when judiciously mixed with lime. As regards the question, how far stakes in a young plantation attract white ants, there was never any question in the mind of a careful planter as to this, and one of the *hookums* of such an one, always is to keep the stakes some distance away from the young plant, so that if the white ant attacked the stake it would leave the plant alone, and no careful Manager leaves the stakes in longer than can be helped, but to remove the stakes at so early a period as Dr. Watt suggests would be suicidal, for the coolie looks as keenly for the stakes to direct his hoeing or weeding, as a Babu does after his garden *dustoory*, and it would be as difficult to prevent the hoeing out of plants without stakes as to prevent the Hooghly running past Calcutta, always provided they are of course not grown to a height of a foot or eighteen inches. In planting out a garden with 6 months seedlings, it is usual to remove the stakes during the following cold weather say in November and December, and as the stakes are made of all sorts and conditions of jungle produce, according to what predominates in the estate, no opinion could possibly be given as to its being an attraction or not; on many estates bamboos are largely used and the skin of this is quite impervious to white ants for a much longer period than the stake is used in planting out. In *bheel* gardens, where there is water between the *bheels* and consequently the white ant cannot expend its peregrinations beyond one *bheel*, its ravages are simply appalling and there seems no remedy, as it attacks everything living or dead within that bed. and the planter can simply stand and fold his hands and watch in grief and dismay the destruction of whole rows of strong, vigorous plant. —*Indian Planting Gazette*, May 16.

DRUG REPORT.

(From the *Chemist and Druggist.*)

May 7th.

COCA-LEAVES have been offering somewhat more freely; fine green Truxillo may be had at 1s 2d per lb. on the spot.

CUTTLE-FISH BONE is quoted at higher rates. Several of the parcels recently offering have been taken out of the market, and the demand has been fairly good.

OIL (Essential).—Citronella oil easier at 1s 5d per lb. on the spot, perhaps less.

CEYLON VANILLA: A RECORD PRICE. It will be seen from the extract given in our commercial column that at the latest drug sales in London 19s 6d per lb. was paid for a paline reflecodrid Ceylon vanilla, being the highest price ever paid for this variety. We should like to know where it was grown.

A FORMER CEYLON PLANTER IN CANADA.

Mr. F. W. Godsal writes to us, from South Ford Ranche, Pincher Creek, Alberta, Canada, respecting books on coffee cultivation, and adds:— "Some 15 or 16 years ago, I was coffee planting in Ceylon. I lately paid a visit to the Hawaiian Islands, and was much struck by the prospects of the coffee there. Thanks to the introduction of the ladybird bug, it has quite recovered from the blight, which covered coffee, oranges, guavas etc. I found a few old Ceylon planters there. I hope the *Observer* is flourishing: I hope much, some day, to visit Ceylon again."

THE FUTURE OF JAMAICA ORANGES.

Despite the gloomy forebodings of those who croak and cry that Jamaica has passed from the land of the present to the land of the past there are those who consider that her prosperity is just beginning, arguing that the prosperity of the past was an insipid and uncertain thing as compared with the prospects of the future. No doubt the failure of the sugar plantations to compete successfully with their rivals in northern regions has to a great extent induced this view; but Jamaica, as we have always maintained, is not a country of one achievement of one attainment or of one purpose; the resources, the possibilities of Jamaica are boundless; the fertility of the soil has never been thoroughly tested—indeed it may well be said, Jamaica is the land of the future.* And were impelled to this statement by the event which is chronicled in another column—The immigration of orange planters from Florida to Jamaica. Florida has long claimed the proud distinction of providing the American market with that fruit, but a succession of adverse seasons has been sufficient to humble the vain-glorious vaunters, who scoffed at Jamaica and put their trust in Florida. As our readers are aware planters in Florida have for some considerable time been considering the advisability of emigrating to Jamaica and when it was mooted some time ago that the project was on the *tapis* the wire-pullers of Florida indignantly denied the rumour, asserting that so long as a single orange could be exported from Florida, so long would Jamaica remain in the background. But it must now be apparent that these assertions were not the result of conviction but rather an expression of the paroxysm of rage which possessed the defenders of Florida at the bare thought that Jamaica might yet supplant "the garden of America" in the production of oranges. A change has come over these spouters. Planters, not to be hood-winked by the statements made regarding the impossibility of Jamaica as an orange producing country, have left Florida, and at present a large number of planters who were successful in Florida so long as a measure of success was attainable, are in Jamaica, on the outlook for plantations to raise oranges. Comment on the significance of this immigration is needless. The Jamaica orange has never been properly tested; its qualities are practically unknown to the outside public, and therefore it has been allowed to remain in the background. But now that men of experience and intelligence have arrived with the purpose of giving the orange a fair trial it may be confidently expected that the result, instead of justifying the sarcastic remarks of Florida's favourites, will satisfy even the anticipations of Jamaican growers, and prove once more that monopolies were never recognised by Nature. It is argued that the Jamaica orange is too sweet for the northern palate; but it must be remembered that the average Florida orange contained too much acidity until by the use of chemicals a greater degree of sweetness and a more highly flavoured orange was produced. The same means for reducing the excessive sweetness is within reach of Jamaica planters, and who dare contend that a new era in the history of Jamaica has not begun?—*Gleaner.*

* This may be said of the whole W. I., the "New" West Indies.

THE CROWN COLONIES OF THE EMPIRE.

A CHAT WITH DR. D. MORRIS, C.M.G.

BY OUR SPECIAL COMMISSIONER.

Having interviewed most of the official representatives of the self-governing Colonies, I have been on the look-out for some one who could give me authoritative information with regard to the Crown Colonies of the Empire. I met my man at the anniversary banquet of the Royal Colonial Institute on Friday evening. After an introduction to the Marquis of Lorne, who presided over the brilliant gathering, and a brief chat with Sir Frederick Young, another of the Vice-Presidents, whose name will ever be associated with this remarkably successful institution, I found myself rubbing shoulders with Dr. Morris, the Sub-Director of Kew Gardens, Congratulating him upon his healthy appearance on his return from the Bahamas, I remarked, "You are just the man I have been looking for. I know of no one who has a more intimate acquaintance with the Crown Colonies of the Empire than yourself, and I should like to have a chat with you for publication in "The Citizen." The doctor smiled at the compliment, said he would be delighted to do anything in his power to bring the Crown Colonies, in whose material welfare he had ever taken the deepest interest, to the front, and fixed Monday evening, at the Savile Club in Piccadilly, for the interview.

The Savile—delightfully situated, overlooking the Green Park—is a social club patronised by leading men in the literary and scientific world. We chatted over the soup, the fish, the entrées, and the joint, and continued the conversation in the smoking room, for Dr. Morris is a veritable encyclopædia, upon all that concerns the Crown Colonies, and he gave me sufficient information about their industries, their progress and development to fill a small volume.

But I fancy I hear some of your City readers say, "And who is Dr. Morris?" And as one of the main objects of these interviews is to influence the introduction of capital into the Queen's possessions beyond the seas for the benefit of the Empire at large, it will be of interest and importance to briefly sketch the career of this genial Government official, who has done so much to promote the prosperity and foster the best interests of our tropical colonies.

A native of the Principality, Dr. Morris graduated in honours at Trinity College, Dublin, where he took his B.A. in 1876, and subsequently M.A. and D.Sc. A pupil of the late Professor Huxley, he made botany his special study, and was successful in obtaining early in life the Assistant Directorship of the Botanic Gardens in Ceylon. During his two years' residence at Colombo he made investigations into the coffee leaf disease, and in 1879, when it was decided to establish a botanical department in Jamaica, he was offered and accepted, the post of director. During his seven years' residence in that island he did much towards making known the resources and capabilities of the West Indies. At that time sugar was the great staple of Jamaica, the crop amounting to 35,000, and even 38,000, hogsheads a year of the value of something like £400,000; but he foresaw the effect of the Continental bounties on the same industry, and warned the planters not to continue "to put all their eggs in one basket.,' He recommended the cultivation of fruit and other "minor industries," as they were then called, with the result that of late years fruit has really been the salvation of the colony in which he spent some of the happiest years of his life. In the famous year of the "Colinderies" Dr. Morris was appointed Assistant-Director of the Royal Gardens, Kew. Since he has occupied his present position he has ever taken the warmest interest in the fortunes of our tropical colonies, and in 1891, at the request of the several local Governments, he revisited the West Indies with the object of reporting upon the botanic federation which he was successful in bringing into existence. Last December he paid a visit to the Bahamas to report upon the sisal industry. For scientific services rendered to Her Majesty's possessions Dr. Morris in 1893 received the distinction of C.M.G. In addition to being a fellow of the Royal Colonial Institute, he is a Fellow of the Linnean Society, and a Fellow and late Treasurer of the Royal Horticultural Society. He is married to a daughter of the late Captain Aitken, J. P., President of the Manchester Geological Society, and lives in Cumberland Road, Kew.

Said Mr. Morris: "I quite agree with you that the resources and capabilities of the Crown Colonies ought to be more widely known and appreciated than they are. These Colonies constitute a most important part of the British Empire, Look at their vast area."

"What is it?"

"Oh, only about four million square miles, equal to the total area of the continent of Europe—half-a-million square miles more than the whole of the United States of America, and more than the whole of Australia, New Zealand, Tasmania, Fiji, and New Guinea put together. They are scattered all over the world's surface. Of course, they are chiefly tropical, and that accounts for the large native element. The total population is about ten millions."

"And which is the largest of the Crown Colonies?"

"British Guiana, which is half the size of France. The smallest is Hong Kong—one-fifth of the Isle of Wight. Size alone, however, does not give the relative value of these colonies, for the trade of Hong Kong is of the annual value of about £3,000,000, while that of British Guiana is only about £4,000,000. By the way, the present Governor of Hong Kong, Sir William Robinson, was one of the most enterprising governors the West Indies ever had. He was at Barbados, the Windward Islands, and Trinidad, and was deservedly popular."

"And what about the trade of these Crown Colonies?"

"Well, according to Sir Montagu Ommanney, who as you know is chief of the Crown Agents here, the trade is gradually but steadily improving. The total trade in 1894 was over £112,000,000, as compared with £104,000,000 in 1884, showing an increase of over £8,000,000 in ten years. The trade of the self-governing colonies in 1894 was £190,000,000, so that it is evident that the trade of the Crown Colonies is not unimportant."

"An increase of £8,000,000 in ten years is very good, I should say."

"Yes; but at the same time the great competition in regard to the staple industries renders the further development of the Crown Colonies a matter of the most serious concern. Take sugar, for instance. See how the cane-growing industry is handicapped by beet. The Crown Colonies produce over 7,000,000 tons of sugar a year, of which only 2,000,000 tons come into the United Kingdom."

"Why?"

"Because of the increased production of beet sugar. Owing to the over-production of wheat in America and Australia it does not pay to grow wheat either in this country or on the Continent of Europe. Both Germany and France have gone more extensively in for the cultivation of beet because it gives a better return than wheat, and the consequence is that the market is over-stocked with sugar. About 1,800,000 tons were produced last year in Germany. Of this only 600,000 tons were required for home consumption, leaving 1,200,000 tons for export. The result is that there is little room for our cane sugar in the English market; in point of fact, the failure of wheat in Europe is causing indirectly the failure of sugar in the Crown Colonies. Then again, in addition to sugar, France and Germany are extending their colonial industries. Look at Madagascar. The French will develop that country and its various products will, of course, come into competition with those of our own colonies. Cocoa is already apparently going like sugar. The consumption, it is true, is increasing, but so also is the production, and at a far greater ratio. The stocks in hand are enormous, with the result that prices continue to be depressed. At the end of 1893 the amount in bond was roughly 12,000,000 lb., in 1894 21,000,000 lb., while at the end of last year it was no less than 23,000,000 lb.

What is the result? Prices are only two-thirds of what they were six years ago."

"And you think the pressure is likely to be severer than ever?"

"Yes, and that there is urgent need for systematic action."

"And what do you suggest?"

"Well, in view of the gradual shifting of the position of the old staples, attention must be directed to the development of new ones. Tea has completely taken the place of coffee in Ceylon, and the export this year is expected to reach 100,000,000 lbs. Fruit in the West Indies is worth £1,000,000 annually. In Lagos, Sir Gilbert Carter, the Governor, has had the proud privilege of developing a trade in rubber, which is the most remarkable of any now existing. It is only about fifteen months old, and yet the shipments in 1895 were of the total value of £270,000. Take mahogany, again; a few years ago only about 200,000 ft. of this timber came from West Africa. In 1893 the total receipts in Liverpool alone were 3,200,000 ft. It is true that this trade has injured the old mahogany trade of British Honduras, which has fallen away from 5,000,000 ft. to 200,000 ft.; but that colony has other resources which can be developed."

"Then your argument is ——"

"That it is the duty of England to prepare the Crown Colonies for keen competition in the future by laying the foundation of sound and flourishing industries. What I would suggest is the immediate extension of the system of botanical and experimental gardens under skilled persons throughout the whole of the Crown Colonies; the organisation of efforts to promote new industries and revive old. Scientific and practical organisation should go hand-in-hand, with due regard to the requirements of the nearest markets. Then there should be a change of educational effort. Instead of fitting the natives for clerkships in stores or offices, we should seek rather to make them skilful cultivators. At present the system of education is such as to give them a distaste for manual labour and a dislike for taking up the cultivation of the soil. During my last visit to the West Indies an old native came to me and said he had educated his son in an English school, where he had developed very expensive tastes. He lived upon the money supplied him by his father, and when his father got old and infirm would not dream of taking to the land; in fact, such sons get positively ashamed of their fathers. That has been, unfortunately, the case in the West Indies; but I would mention that Sir Henry Blake has taken steps to apprentice a number of boys to the Botanical Gardens of Jamaica for the purpose of having them trained in the cultivation of economic plants, so that they might become afterwards agricultural instructors amongst the peasant proprietors in the island. That is a step in the right direction, and one which might with advantage be followed in the other islands. In many of our Crown Colonies people are entirely without knowledge with regard to the cultivation of industrial plants. They are anxious to learn, but there are in some of the Colonies no Agencies, and that is why I recommend the establishment of experimental gardens. We are, however, improving in this respect. In 1880 there were only three botanical gardens in the West Indies; now there are eleven botanical institutions—experimental and trial stations for new industries."

"Well, it is to be hoped, Dr. Morris, that your suggestions will have weight in the right quarters."

"It is clear that something will have to be done. Strange as it may seem, probably the most flourishing colony in any part of the world today is Java. There they have extensive botanical gardens and experimental or proof stations, of great value and utility, under the charge of a large staff of highly-skilled scientific men maintained by the Government of Holland. Then Germany is following the example of Holland, and doing all it can to develop tropical industries in Africa. Similarly, France is aiding also by means of differential duties and grants-in-aid."

"But Mr. Chamberlain seems to be fully alive to the situation. His circular to the Colonial Governors eliciting their views on the development and extension of British trade with the colonies ought to be productive of good."

"Mr. Chamberlain's sympathy with the colonies is well known, and his desire to develop colonial trade is regarded as most encouraging. His influence is already felt in the various colonies. He has infused new life into many of them, and what is more has induced a greater interest to be taken in the colonies in this country."

"Speaking of Mr. Chamberlain, he is, I understand, largely interested in the sisal industry of the Bahamas, from which you recently returned."

"Yes. By the way, the history of this industry is interesting. The sisal plant had been in the colony for the last 50 years, and had really become a hindrance to agriculture. People did not know what to do with it. Several Governors took the matter up. The first of these was Mr. Bailey, in 1857; then Sir William Robinson, then Sir Henry Blake, who, just as he was on the point of developing the industry, was transferred to Newfoundland. It was then taken up with great energy and enterprise by Sir Ambrose Shea, who really deserves the credit of having placed it on a commercial basis. Well there are about 12,000 acres already planted. It is estimated that this year they will export about 6,000 tons of prepared fibre. There were fears that the market had fallen so low as to render the industry unremunerative. The price of the fibre last year was £15 per ton, but today it is worth £17 10s., and as the fibre can be marketed for about £10, there is at the present moment a good margin of profit."

"The market, of course, is the United States?"

"Yes; which is really the natural market of the West Indies. The orange cultivation in the United States having been practically destroyed, there is now an opportunity for the Bahamas, Jamaica, and other islands in the West Indies to supply the States with tropical fruit on a larger scale than ever. Owing to the failure of the Florida crops it is expected that the trade in oranges between Jamaica and the United States alone this season will be worth £120,000. When I was in Jamaica in 1880 the fruit trade of that island only amounted to £10,000 a year, in 1886 it had grown to £400,000, and today, as I have said, it is worth probably over a million sterling. Where originally there was one steamer employed under a subsidy, there now seven steamers regularly engaged in the fruit trade, and running without any subsidy at all."

"But is it not possible to develop a trade in fruit between Jamaica and this country?"

"I think so. At any rate, the Government of Jamaica seem determined to find out whether there is or is not an opening here for tropical fruits. They intend to specially charter a steamer fitted with cool chambers to run direct from Kingston to the docks here. She will bring oranges, bananas, mangoes, and indeed all kinds of tropical fruits. The experiment, I need hardly say, will be watched with great interest."

"Well, Dr. Morris, I am very pleased to have had this chat with you. Evidently, there is money to be made out of our Crown Colonies today."

"Yes, I certainly think so. Look at Dominica. There is no other West India island so rich in natural resources. It is capable of producing all the richest treasures of the tropics, and yet it is languishing for want of the necessary capital and energy to work them. As showing what small industries can do, Bermuda is almost entirely prosperous because it grows onions and new potatoes. St. Helena sends new potatoes to the Cape. Grenada is noted for its cocoa, nutmegs, and cloves, while Montserrat is known all over the world for its lime-juice. Yes, the 'minor industries' are not to be despised. There is money in them, and, indeed, for small capitalists, the Crown Colonies offer perhaps just now better opportunities than any other part of the Empire."—*Citizen*, May 2.

THE GOVERNMENT OF BENGAL has informed the Indian Tea Association that the question of improved road communication in the Duars is receiving the attention of Government, and that a scheme for the construction of new roads, and the efficient maintenance of existing ones, is being prepared.—*M. Mail*, May 23.

PLANTING AND PRODUCE.

The Brewing of Tea.—We have frequently called attention to the ignorance displayed in brewing tea and the indifference shown by the public on the subject. Judging by the concoctions served at the average resturant and railway station bar it is surprising that tea is so popular, for it is no rash assertion to state that a large number of people who drink so-called tea have not the smallest idea what a really good cup of tea properly made is like. Owing to the rapidity with which the tea is made and served in refreshment rooms all the ordinary rules for brewing tea are set at defiance, and as a result some liquid resembling diluted snuff is taken into the system under the name of tea. It is therefore remarkable that the demand for tea has increased so much under such unfavourable conditions. An honest endeavour has been made by some refreshment room proprietors to improve the methods of tea brewing, but owing to the indifference of the public and the trouble entailed they soon fail back on the old system. The tea trade does not appear to suffer much in consequence, although who can say what the demand would be like if the delicate flavour of the tea were preserved in making the tea? Perhaps, following the example of the old lady who liked her gin when it tasted like turpentine, the palate used to stewed tea would despise anything less pungent.

With Coffee it is Different.—It is not so with coffee. The demand for coffee has no doubt fallen during the past, owing to the difficulty of making it on this side of the Channel. On this subject the *Grocer* points out that the serious decline in the demand for coffee has been realised by all members of the trade, and in a severe degree by those gentlemen whose dealings are mainly in this commodity. But up to the present the efforts of the deputation of merchants and others interested to induce the Chancellor of the Exchequer to remove or reduce the duty and to facilitate operations in bond have not been rewarded by any marked degree of success. On the contrary, the pessimistic dealer persists in taking an even gloomier view of the situation. It is worth while, perhaps, to ask if there be not some reason for the change in the public taste. The Chancellor of the Exchequer put it down to the inability of the ordinary Englishwoman to make a decent cup of coffee. There may also be something in the theory of a professional gentleman who writes to a daily contemporary. This gentleman's observations and "bitter personal experience," extending over half a century, have led him to the conclusion that the true cause of the relatively increased preference for tea, with its deleterious constituent tannin, will ultimately be found to depend, not on the incompetence of the English housewife in making coffee, but on the over-roasting of the berry by the trade coffee roasters, with a view to impart a deep colour and apparent, but factitious, strength to the infusion when made. During his process, he says, an empyreumatic product is generated, which causes such highly roasted coffee to disagree with the stomach, and renders dyspeptic persons unable to indulge in it, in consequence of the heartburn and flatulence it produces. He argues that if public were candidly given to understand that highly roasted coffees, though imparting a deeper colour to the decoction or infusion, are *de facto* less strong, with a corresponding loss of the true aroma, than the lightly roasted berry, coffee would ere long resume its place as one of the national beverages. The consummation is one devoutly to be wished. But the Chancellor of the Exchequer was near the just apportionment of blame when he saddled it upon the shoulders of the consumers—the people who try to "make a cup of coffee," and only succeed in spoiling one. If the public would but exercise the care and skill which are essential in making a cup of really good, fragrant coffee, the results achieved would amply repay them, and we should probably soon see a revived demand. The best way to achieve this end is to educate the public in the right method of preparing coffee for the table.—*H. and C. Mail*, May 15.

PUBLIC MEETINGS HELD IN PRIVATE.

To the Editor of the *Home and Colonial Mail*.

Sir,—The tea investing public is greatly indebted to you for calling attention to the exclusion of reporters from the meetings of some companies. It is to be hoped that the new measure now before Parliament dealing with joint stock companies provides for the admission of reporters to all shareholders' meetings.

I can instance my contention that the accounts of shareholders' meetings are inadequate from your own columns. In the report of one of the tea companies you published last week, a company which does not admit reporters, there was so much of the proceedings omitted that you might as well have contented yourself with reprinting the report of the directors.

While your report, which I presume was contributed, gives the chairman's platitudes in extenuation of poor results, and a eulogy of colleagues, some trenchant critical remarks of one or two shareholders do not appear. The observations of one speaker, as reported, convey a wrong impression, moreover, for when the speaker criticised the management on the subject of the salary and commission paid, and intimated that the holding of appointments by the managing director of a similar kind in other concerns might be detrimental to the particular company to which the speaker referred, your report left the pith and gist of the speaker's remark in doubt. Another speaker also mentioned that if he attempted any review of the direction, the difficulty would be where to begin and where to stop. He also said if he were to attempt such a task he would not compare the results with those of agricultural holdings at home, but would ask how it was that neighbouring gardens with inferior natural advantages gave a profit of £8 per acre, while the company under criticism only showed half as much. A neighbouring concern gave a profit of 5d to 6d per lb., while the other company gave but 3d to 3½d. All this seems to me fair and useful comment, and should, with other kindred observations of a critical nature, be duly reported.

If shareholders took more real interest in the welfare of the concern in which their money is invested, they would agitate for more publicity.—I am, sir,

Another Shareholder.

[Our correspondent, we fear, expects too much. When our own reporters are refused admission to meetings we have to rely upon accounts of the proceedings kindly supplied by friends who, like our correspondent, believe that publicity is beneficial to all concerned. We cannot under the circumstances complain if these reports are not as full and complete as they otherwise would be. They do not emanate from official sources, and they are intended to be impartial, and to convey a correct account of the proceedings. Even if our own reporters were admitted in each case it does not follow that we could give a report of every word said. Life is short, our space is limited, and some shareholders are very inquisitive and sometimes long-winded. We agree with our correspondent that publicity on all vital points is desirable. Were we permitted to report the proceedings of all tea companies we trust that "Another Shareholder" would have no cause for complaint that justifiable criticism is not duly chronicled.—Ed. *H. & C. M.*]—*H. & C. Mail*, May 15.

THE CITRONELLA-OIL AWARD.

Messrs. Green and French, the two brokers to whom the citronella-oil dispute was referred back by the judges, in order that they might take the question of quality into consideration, have given their award to the effect that the oil (which, it will be remembered, consisted of 55 per cent. of kerosene, 35 per cent. of citronella oil, and 10 per cent. of oil of lemon) *is* citronella oil, and that the buyer is bound to accept and pay for it according to contract. They tendered their award to Mr. Domeier, together with a claim for 34 guineas for fees. We understand that Mr. Domeier has refused to accept the award or to pay the fees, and also declined to

take up or to pay for the oil. He declares that he will wait until he is sued by Mr. Treatt, and then bring the case into court.—*Chemist and Druggist*, May 16.

ESSENTIAL OILS.

From the Semi-Annual Report of Schimmel & Co., (Fritzsche Brothers), Leipzig & New-York, for April 1896, we extract the following:—

Cinnamon Oil, Ceylon.—The demand for this oil almost surpassed the supply. Offers of oil of fine quality were scarce last fall; to all appearances considerable quantities were retained in Ceylon in order to cause a rise in prices; this reached 2½d per lb., last September. Quotations have never been so high since years, but have remained unchanged.

In glaring contrast to these prices stand the export figures for both bark (tubular) and chips; the total amount shipped from Ceylon (Colombo and Galle) has been:

	Bark:	Chips:
1895	2,169,527 lb.	920,136 lb.
1894	1,969,905 ,,	657,725 ,,
1893	1,995,257 ,,	667,113 ,,
1892	1,947,538 ,,	615,155 ,,

In London, the principal market for both grades, the stock of cinnamon was not larger than when prices are normal. Under such circumstances it is difficult to foretell the changes for the rates of cinnamon oil in the near future. The fact is that the demand during recent years has been unusually large, and that the quantity of cinnamon chips consumed in our distilleries amounted to about the ninth part of the total shipments during the year 1895. These figures, however, when compared with the export figures of former years, do not justify a conclusion as to the rise of values, but other factors must have exercised an influence upon the cinnamon market. From an economic stand-point the rise of prices should not cause surprise, since those of the raw material and of the oil were abnormal ones.

Citronella Oil.—The prices of this oil, one of the most important ones in the soap-making industry, have increased within the last six months from 1s 3d per lb., or marks 3.20 per kilo, to 2s, or marks 4.60 per kilo. As there has been no failure in or decrease of the crops a real cause for the rise of prices cannot be well ascertained.

The only explanation can be found in the increased use of the oil, since the American and English custom of perfuming not only toilet, but also common grades of domestic and even of soft soaps with flavors containing citronella oil seems to find general favor. If this inference is a correct one, as indicated by the following figures, the present market condition of this commodity may be considered a normal and, it may be hoped, a permanent one.

Recent shipments show a considerable increase; they amounted to:—

1895.. .. 1,182,760 pounds Engl.

a quantity never before attained

1894 .. 938,471 ,, ,,

1893 .. 668,550 ,, ,,

These figures are copied from the official report of the German Consulate at Colombo (Deutsches Handels-Archiv, March 1896, Heft 108). We notice with gratification that the figures in the statistical complications of these reports are now stated by the pound and not any more by the ounce.

With so brisk a demand for, and so large transactions in, citronella oil sophistication has to be looked for and constant care has to be exercised in the control of this subtile oil.

The coarse sophistication of citronella oil by the admixture of petroleum or fatty oils, so common in former years, has been much lessened since the publication of our "solubility test." There can nevertheless be no doubt that the quality of the commercial citronella oils has recently experienced a retrograde tendency, as is evident from their behaviour with 80 per cent alcohol. According to our statement published in our Report of 1889, citronella oil should give a clear mixture with 2 to 3 parts of alcohol containing 80 per cent by volume of anhydrous alcohol; and this mixture should remain clear upon the addition of 7 to 8 parts of alcohol of the same strength. A turbidity would indicate a sophistication; upon allowing the mixture to stand in a closed vial for some time, fatty oil will settle at the bottom, while kerosene will separate at the top of the alcoholic fluid.

Not all commercial citronella oils seem to stand this simple test at present; they may render a perfectly clear solution during the first part of the test, but upon the further addition of alcohol an opalescences or a turbidity occurs without, however, giving rise to the formation of any deposit, either at the bottom or at the top of the liquid, even when left standing for 24 hours. We could not but allow on several occasions such oils to pass, because a sophistication could not be proved and better oils could not be obtained in the market.

J. C. Umney in a recently published paper (Chem. and Drugg. 48 [1896] 356) also calls attention to this discrepancy between different commercial citronella oils in their deportment with alcohol. He is inclined to believe that a kind of gurjunbalsam oil may be used as an adulterant. For this purpose, however, the common commercial gurjun oil can hardly be used, nor can the amount of any such addition be considerable, since an experimental admixture of but 10 per cent of gurjunbalsam oil not only much impaired the solubility of the oil in alcohol, but also gave rise to the separation of drops of the balsam oil at the bottom of the liquid, after it had stood for 24 hours. Umney suggests the acetylisation process for the estimation of the amount of geraniol, and that a minimum amount of 60 per cent of geraniol be required.

We have also been about since some time to apply this test to citronella oil, have, however, not yet succeeded in obtaining sufficient material to form a definite conclusion. In all such examinations and final statements too much discrimination and care cannot be exercised so as not wantonly to disturb the confidence of the market.

Just before closing this report we were called upon to certify to the quality of a suspicious citronella oil in the London market; on examination it proved to be largely adultered with petroleum hydrocarbons (kerosene, paraffine oil). The quantity of this adulteration amounted to about 66 per cent and the sophistication seems to have been committed after the arrival of the oil in England.

Lemongrass Oil.—Sp. gr. 0.895. Opt. rot.—0° 8' at 16° C. The general characteristics of the Brazilian oil are identical with those of the Ceylon oil, with the exception of its solubility in alcohol; while the latter oil forms a clear solution with 2 to 3 parts of 70 per cent. alcohol, the Brazilian oil does not, even with 98 per cent. alcohol. The oil was distilled from cultivated plants. In years with a rainy summer season as much as four crops can be cut, in a dry summer only three cuts of the grass can be harvested. The oil in the plants seems to undergo considerable changes; the quicker the grass grows, the lighter is the color of the oil obtained; dried grass yields a more or less dark oil; the same is the case when the grass is exposed to cold nights during the winter. The yield from fresh grass ranges, according to the season, between 0.24 and 0.4 per cent.

Geraniol from Citronella Oil.—The introduction of this fine substance into perfumery advances slowly. We have applied for a patent in Germany on pure geraniol as main-body for the odor of roses and of mignonette.

The remarks in our last Report on an inferior geraniol, made from oil of citronella, which was offered in the American market have caused the disappearance of this article from the price lists of the firm in question, but "geraniol chemically pure, soluble in 12-15 parts of 50 per cent alcohol" has been put into its place. We, however, have doubts about the wisdom of quoting immediately below this article "Geraniol with Roses, see Rose Reuniol.'

A PROSPEROUS CEYLON TEA COMPANY.

We need add very little to the full report, which the *Financial News* of May 14th affords, of the proceedings at the annual meeting of the Scottish Ceylon Tea Company's shareholders. This is one of the older as well as of the most prosperous of Ceylon Companies, rising one year in dividends to 18 per cent, but latterly wisely resolving to adhere to the 15 per cent which distinguishes our premier Company, while gradually forming a satisfactory reserve fund, and allowing fully for depreciation of buildings, machinery, &c. No one, we think, can read the remarks of the Chairman and of the Ceylon Manager, Mr. Kerr, without feeling that judicious management in respect of cultivation and preparation as well as in the conduct of all business detail, account for the marked success of this Company. The steady increase in the average yield of the estates is noteworthy, as also the fact that the Directors are not ambitious that this average yield should rise above 450 lb. an acre—a fact which ought to enlighten many Indian tea critics who argue that Ceylon gardens are being overcropped, and must, within a limited time, collapse! The remarks of Mr. David Kerr in this case—and of Mr. Talbot in respect of his Company—as to the policy which guides the management of these Ceylon tea estates, should go far to dispose of such criticism. Most careful are such Managers not to force their tea-bushes,—not to over-pluck them, nor to stimulate them by artificial manures; but rather to help them to maintain their usual vigour and to do justice to the fields in every possible way indicated by sound wise systems of cultivation. The only thing we need add to the report of proceedings is an extract from the letter of a well-known Ceylon planter, read by the Chairman at the meeting, but apparently not given in the *Financial News*. It ran as follows:—"I regret I will be unable to attend the meeting of the Scottish Ceylon Tea Co., Ld., to be held tomorrow, but as a shareholder and knowing the estates and the Ceylon Manager, Mr. David Kerr, I have much pleasure in expressing my satisfaction with the Ceylon management. In Mr. Kerr the Company has a Manager keenly alive to their interests, and I hope he may long continue to act as their Manager there. I visited Strathdon, Abergeldie and Lonach with Mr. Kerr in February last, and I can testify to their being in first-rate order, and the bushes remarkably healthy in appearance."—We heartily congratulate all connected with the Scottish Ceylon Tea Company. J.F.

NOTES FROM OUR LONDON LETTER.

LONDON, May 15.

Among other matters that engaged the attention of the Tea Committee of your Association on Wednesday last was consideration of a latter addressed to it by your

TEA COMMISSIONER FOR AMERICA.

Nothing certain as to this letter has transpired, but it is believed that it contains some novel remarks upon the course of the tea trade in the United States. It is also rumoured that Mr. Mackenzie states one great obstacle to progress to be the distinct preference of the Yankees for green teas. We remember the late Mr. Whittall remarking that he did not think any amount of expenditure in America would have a successful result for you until this preference could either be successfully combatted or provided for by a change in preparation by your planters. He remarked to the writer that he was himself devoting much attention to making such a change on his own estates, but we have never heard whether he did this successfully. It would seem, if what is said about Mr. Mackenzie's letter may be relied upon as correct, that that gentleman has come to acknowledge the difficulty prestated to exist by the late Mr. Whittall. It is not known what the views of the Tea Committee of the London Ceylon Association may be with reference to this particular of Mr. Mackenzie's letter. At all events it is said that that body has decided to have the letter printed and circulated among the members of the Association. It has been suggested that Ceylon must undertake a missionary tea enterprise in the States to convert the popular taste from green to black tea. As yet, what has been done does not seem to have gone far in the direction of accomplishing this change.

It seems probable that the report of the abovenamed Tea Committee that was to have consideration at last Wednesday's meeting may have to be somewhat deferred in order to the dealing with the two subjects mentioned above being included. It is hardly likely, however, that progress could be made before the Annual General Meeting of the Association sufficient to warrant any delay to insure inclusion in the report. We have not yet heard if Lord Stanmore has fixed a day for that meeting.

All admit that

"MAZAWATTEE TEA"

has been a great success, inasmuch as it has obtained an enormous popularity and corresponding consumption. The more educated palates do not relish the article, and it is not much met with in the better circles of society. But the fact remains that there must be millions who do appreciate and who use it exclusively. Its sale is said to have procured large fortunes for its present proprietors, and it creates no surprise therefore that the concern is soon to be converted into a limited liability company. With the enormous amount of capital now seeking investment, a perfect rush for the shares in this may be predicted. Mazawattee tea is a fresh and striking instance of what can be achieved by persistent and bold, if somewhat unscrupulous, advertisement. Without this it may safely be said that Mazawattee tea would have remained unknown to fame.

THE TEA DUTY.

A somewhat cool proposition was made by Mr. Lloyd George, the well-known Radical member for Carnarvon, in the House of Commons this week. During the Committee on the Finance Bill this gentleman rose to move an amendment, which was, to insert after the words providing that the tea duties should be continued the words "except with respect to tea grown in any part of Her Majesty's dominions." Mr. J. H. Lewis, another Welsh member, seconded this motion and urged the desirability of encouraging Indian tea. He advocated the abolition, he said, not only in the interest of the poorer consuming classes but of an industry in the island of Ceylon, which deserved encouragement. The present condition of India, he went on to say, did not justify the House in retaining any duty which might be prejudicial to our Indian Empire. That such a measure of protection such as this should be advocated by professed Radicals has naturally given rise to astonishment, they having been always looked upon in the light of bigoted free traders. Sir Howard Vincent

must have been delighted to note such a defection from among the ranks of the strongest opponents of his persistent advocacy. But the Chancellor of the Exchequer soon disposed of the matter. His chief argument was one it was impossible to controvert. He pointed out that the adoption of the amendment would destroy the duty on tea in a year when we could not afford so large a loss to the revenue. He also alluded to the effect the abolition would have in putting an end to the payment of indirect taxation by a very large number of the population. He followed up these remarks by the very natural observation that "this was a proposal which, coming from the other side of the House, was of a very remarkable character, because it indicated the adoption by hon. gentlemen opposite of what they had hitherto denounced as a policy of protection, or at any rate, of a reactionary character." Evidently the minister was so taken by surprise that, as he said, had he known what was intended he would not have attempted to proceed with the Bill, or rather he would have postponed the consideration of the clause and taken up the succeeding clauses which were non-contentious. As the subject had now been raised, he said he would not ask the Committee to proceed with the discussion that night, but would move to report progress, which was then done. What the Cobden Club must think of this matter is not known to us. But since it has so complacently accepted the protectionist principle in Ceylon in regard to grain taxation, it may perhaps be able to swallow this new move. But undoubtedly the Government is taken aback by the circumstance, that *sub rosa*, many of its members entertain protectionist views, to which they would gladly give expression but for the fear of losing freetraders' support. Now they find the tables being turned upon them in a most unexpected manner. If this sort of thing extends, it is impossible to say what limit, if any, may be assigned to future *volte face* movements. The affair may be found to possibly colour the proposals of future Budgets.

SCOTTISH CEYLON TEA CO., LTD.

A SATISFACTORY YEAR'S WORK—STATEMENT BY THE CEYLON MANAGER.

The seventh annual ordinary meeting of the Scottish Ceylon Tea Company, Limited, was held yesterday, at the offices, 16, Philpot-lane, E.C., under the presidency of Mr. H. L. Forbes (the chairman of the company.)

Mr. J. F. Anderson (Lyall, Anderson and Co., secretaries) having read the notice convening the meeting,

The Chairman said: On this occasion, on behalf of the board of directors, I think I have very little indeed to say to you, and as we are about to declare a good dividend, I daresay you will have very little to say to us. I think we have embodied in our report all that we have to say with reference to the working of the company during last year, and I am sure you will agree with us that the report we present to you is satisfactory. It varies but little from those of former years, and I think that is a matter for congratulation. The net profits for the year amounted to £8,801, and, with the balance brought forward from the previous year (£669), we are left with a sum available for distribution of £9,471. An interim dividend at the rate of 5 per cent, free of income-tax, was paid in September last, absorbing £2,050, and dividends on the seven per cent, preference shares have also been paid, amounting to £630. It is now proposed to pay a final dividend on the ordinary shares of 10 per cent, free of income-tax, making 15 per cent for the year, which will absorb £4,100. We then propose to add £1,000 to the reserve fund, raising it to £6,000, and to write off for depreciation on buildings and machinery £838, which is about 10 per cent of the valuation of the buildings and machinery belonging to the company, as valued by our Ceylon manager, Mr. Kerr. The total tea realised during last year exceeds the estimate by 7,049 lb., which is very satisfactory. Then, in addition to our own teas, you will note that we have made a large amount of teas for other people, which is a very paying business We have manufactured 220,743 lb. for others. Then, as regards the result of the yield per acre, during last year the average was 433 lb., which shows a steady advance over the previous year. In 1892 the average yield per acre was 336 lb.; in 1893, 381 lb.; in 1894 407 lb.; and now, as I told you, it is 433 lb. I told you on a previous occasion that the average would probably go up to 450 lb. per acre, and I think very likely it will; but we do not think it would be desirable to look to exceeding that, for I think that is quite as much as the bush can carry. The average price realised in London was a fraction lower than in 1894; but, still, taking the prices of Ceylon tea generally, I think our company stands as well as any other in this respect On this occasion we have again to welcome our Ceylon manager, Mr. Kerr, who will be very happy to give you any information you may care to ask of him. The acreage of the company's estates remains the same. You will be asked by and by to record your appreciation of the services of both the London and Ceylon staffs, re-elect a director, and also our auditor. The resolution I have to propose is: "That the report and accounts, as now, submitted, be adopted, and that a dividend of 10 per cent. (free of income-tax) be paid on and after this date." (Applause.)

Mr. Donald Andrew seconded the motion, and congratulated the shareholders on the continued good position of the company.

Replying to Captain Grant, the Chairman said all the buildings and machinery had been revalued and reinsured Whenever any additions were made the board was careful to have them insured. The income from the reserve fund was included in the item for interest in the profit and loss account. There was still some labour trouble in Ceylon, but things were no worse in that respect than they were last year. He thought they ought to thank the Ceylon press for the manner in which they directed attention to the question of labour supply. The securities which were purchased with the reserve fund cost the company £4,992, and they were to-day valued at rather over £5,277.

The motion was then unanimously rcarried.

Mr. R. W. Forbes proposed the re-election of Mr. Donald Andrew to his seat on the board, which was seconded by the Chairman, and carried, and, on the motion of Mr. Sanderson, seconded by Mr. Mennell, Mr. James B. Laurie was re-elected the auditor.

The Chairman moved a vote of thanks to the Ceylon and London staffs, and poke in high terms of Mr. Kerr's management. H read a letter from a shareholder of the company residing at Ceylon, and who, he said, was well-known out there, referring in warm terms of praise to the management of the estates under Mr. Kerr, and their general condition. The Chairman also alluded to the excellent management at the London office.

Mr. R. W. Forbes seconded the motion, which was carried unanimously

Mr. David Kerr, in acknowledging the compliment on his own behalf and that of the superintendents in Ceylon, said he could confidently say that all who were working for the company in Ceylon had the interests of the company very much at heart, and were very proud to see it well to the front. They all did everything they possibly could to get the best results out of the estates, and it was very gratifying to them to find that their efforts met with approbation on this side. While in this thankful frame of mind he felt he should like to refer to two debts of gratitude which he entertained. The first was to their directors for the very kindly and thoughtful manner in which they had treated them all in Ceylon, and also for the strong support and encouragement which they had given him personally, as manager, in all the years they had been working. The second debt of gratitude was to their

worthy secretaries for the courteous way in which they conducted all the correspondence. He was proud to say that during the whole existence of the company, there had never been one hitch between the London office and the company's representatives in Ceylon, and he hoped such a state of things might long continue. (Applause). He attributed this very much to the fact that they had as their managing director a gentleman who had a thorough knowledge of planting and of planters themselves, which was a very great point indeed. Shareholders would wish to hear a few remarks from him about the estates. All he could say was in corroboration of what the managing director had already stated, and they had a tangible proof today of the high value of those estates. As regarded order and condition, they were certainly second to none in Ceylon, and he thought there were very few estates which, on the whole, came up to them. The bushes were in perfect health, the estates were free from weeds, and the general cultivation was well up to date. They had machinery which was quite up to the present time, and capable of manufacturing not only their own leaf, but also of taking in a considerable quantity of leaf beyond what they were likely to produce on their own estate. Another point of satisfaction in connection with the machinery, was the splendid motive power they had. As a rule, in their factories they were fortunate in having powerful motors—turbines mostly—driven by water, and anyone who knew anything about such machinery would understand what a boon this was in keeping down expenditure. No money had been spared in putting the estates into a condition of thorough efficiency. With regard to cultivation by manuring, their object all along had been to help the trees, and not overdrive them by putting more manure into the ground than they thought sufficient for the health of the trees. Had they put more no doubt they could have given a larger return of leaf than they had; but they had thought it unadvisable to do so. Referring to the progress that the company had made in acreage since it started seven years ago, he stated that although they had increased somewhat, he regretted they had not done so to a larger extent. He found that in 1889 they had a total acreage of 1,531 acres, which at the present moment had been increased by over 400 acres, bringing the total up to 1,9-3 acres. When they "topped" that and came well into thousands he should be better pleased. As regarded tea, they started with an acreage of 1,401 acres, which he was glad to say had been brought up to 1,722 acres, including the new clearing which was now being planted. Of the tea planted in the last few years, one of the clearings, amounting to 83 acres, had come into bearing this year, and the remaining young tea would come into partial bearing next year. As to the crops in 1889 they started with an average per acre of about 228 lb. They had gone on increasing until at the close of last year they had a crop of 668,000 lb. of made tea, or 433 lb. per acre, being about 7,000 lb. over the estimate. That increase, he felt sure, was not only due to manuring, but also to the new clearings coming into bearing. The average would be increased during the year on which they had now entered, and would go on improving for the next few years. (Applause.)

Mr. J. Ferguson moved:—"That a cordial vote of thanks be given to Mr. H. L. Forbes, Chairman and managing director, and to his co-directors, for their able conduct of the Company's business." He had known their Chairman from his first day in Ceylon, and his career as a hard-working, intelligent, straightforward planter—first as superintendent, and afterwards as managing proprietor, of his family's plantations—afforded an example which it would be well to keep before succeeding generations of young planters. Mr. Forbes was well-known as an ardent cricketer and golfer; but he never allowed recreation to interfere with estate duties. Then, in the dark days of coffee depression in Ceylon Mr. Forbes never lost heart; but even invested fresh capital at a time when most men were clearing out of the island. On the plantations thus formed, after being turned into tea, rose the Scottish Ceylon Company, and he need not tell the shareholders how well its affairs had been looked after by their managing director and his colleagues, and how well they deserved this cordial vote of thanks. (Applause.)

Mr. George Todd seconded the motion, which was carried unanimously, and the proceedings then closed. —*Financial News*, May 14.

NOTES FROM THE METROPOLIS.

OUTH KENSINGTON, May 15.

I need say little here about the Society of Arts meeting on

"TEA IN DARJEELING"—

having so fully dealt with the paper, separately. But I may say that amongst 70 or 80 presents, I only saw one Ceylon man, Mr. J. Macintosh-Smith of Caledonia, Dimbula (he left early, if I am right); but there was a number of Darjiling and North India planters besides Mr. Hancock, Mr. Ernest Tye and other "tea" men. Sir Richard Temple—looking uglier than ever!—proved a genial Chairman; the paper deserved all the credit given to it. but was badly delivered, Mr. Christian being nervous and hurried. The slide illustrations were, however, very good—of the scenery, tea gardens, buildings, machinery, coolies, bazaar, railway line, &c. The full discussion will follow in the Society's journal; but I may mention that Sir Stuart Bayley—tall and grey—and Sir Chas. Elliott—shorter, broader and almost white-haired, but very alert—both spoke well and appreciatively. Mr. Christian had one Ceylon slide of tea withering and an old Darjiling planter made some fun by calling on the lecturer to disavow the starved-looking creature shown on the floor being a Darjiling cooly—he could only belong to Ceylon. (He was in reality, as I told the sceptic, only a Tamil boy and not a man; for he ought to come and see what sleek, well-formed coolies Ceylon had to show!)

THE SCOTTISH CEYLON TEA COMPANY'S

annual meeting is fully reported in the financial papers, and both the Managing Director (Mr. H. L. Forbes) and Ceylon Manager (Mr. David Kerr) met with a cordial welcome from the shareholders present, who included Messrs. Jas. Grant, Dod, Sanderson, Keith, Arbuthnot, Anderson, Geo. Todd, formerly of the Royal College, Colombo. Mr. Todd retains his position in connection with the Scottish Educational Department at Whitehall, and though older-looking like all of us, is still hale and hearty, with a warm corner for Ceylon.

I was glad to learn during a visit to the office of Messrs. Gow, Wilson & Stanton that they are not at all afraid of the increased

TEA SHIPMENTS

from Ceylon, inasmuch as there is no Indian tea to compete at this time of year. They are only selling on two days in the week now. They showed me evidence of the tea making season so far being unfavourable in Northern India, *e.g.*, a card circulated in the City as follow:—

THE BRITISH ASSAM TEA COMPANY, LIMITED.

Summary of Telegram received today from Messrs. McLeod & Co., Calcutta.

Tea Manufactured to 30th ult. (1896)	..	82 Maunds.
,, ,, to same period of last year (1895)	..	252 ,,
Decrease (in 1895)	..	170 ,,
Decrease on 1894	..	209 ,,

D. M. STEWART, Secretary, 3. East India Avenue, E.C. London 6th May 1896.

If this continues, and the Indian tea estimate has to be cut down, Ceylon must have another prosperous year; but it is too early yet to say much.

An ex-Ceylon colonist interested in tea at home, remarking on a statement in your columns about the need of promoting the demand in Britain as well as in new markets, writes:—

"The enclosed cutting, and the last part of it, from *Overland Observer* of April 17th, page 392, hits off exactly what I have held for years, and the best way that I can think of to do this is to make a fresh crusade against our teas being sold with Indian. Little use trying to stop the sale of tea 'Indian and Ceylon.' The thing to do is to let the public know what is a pure Ceylon. All very well to peg away at new fields, but the U.K. must be our great outlet for years to come. And even in the U.K. you can have no idea how few people still know what a pure Ceylon tea is. Grocers and others won't give it them."

Messrs. Gow, Wilson & Stanton mentioned among other flourishing Ceylon Companies, the strong position taken up by the

EASTERN PRODUCE AND ESTATES CO.

whose £5 shares were now sold for £5 15s, and which was the subject of commendatory notice in *The Statist* the other day for its good management:—

A PROMISING INDUSTRIAL.—An industrial company that we consider has an excellent position, and which investors content with a comparatively low yield, in the reliance on better times in the not far off future, should give attention to the Eastern Produce and Estates Company, Limited, a tea company with estates in Ceylon. In respect of its area under cultivation it is first on the list of tea companies either in India or Ceylon. The issued share capital is £299,888, consequently it is of respectable size, and commands a free market, and there are Debentures in issue for £122,500. Only recently the Company, owing to its steady progress, was able to replace old Six per Cent Debentures, of which there were about £150 000 a few months ago, with Four-and-a-Half per Cents. The estates owned by the Company cover an area of 16,630 acres; 10,337 acres are under tea cultivation, and on 9,000 acres the plants are four years old. The yield of tea in 1895 was 3,276,000 lb., and the estimated yield for 1896 is 3,458,000 lb. Then, there is not far short of 1,000 acres under cocoa, coffee, and cardamoms, and the balance of land is uncultivated or forest grass at present.

For 1895, after covering Debenture interest, retiring £7,500 nominal of new issue of Debentures by drawings, and setting aside £5,000 addition to the reserve fund, already existent, the dividend on the Ordinary was at the rate of 5 per cent for the year, leaving the substantial balance of £10,182 to be carried forward, equal to 3½ per cent upon the Ordinary capital. The shares are quoted about 5½—¾, giving a yield of nearly 4½ per cent on the dividend actually paid for 1895; and now the area of land under tea is thoroughly established the outlook is for larger results year by year.

I was wrong, too, by the way, the other day in supposing that "the Ceylon and Oriental" was the only one with debentures at 4½ per cent. The Eastern Produce and Estates Co. is in the same happy position of having 4½ per cent debentures.

PLANTING IN PERAK.

From the annual report on the Kuala Kangsar District for 1895, published in the *Perak Government Gazette* of May 22, we quote the following extracts:—

There are now 13,107 acres in the district leased out for coffee and pepper planting. Of this area about 1,200 acres have been already opened in coffee and 60 acres in pepper.

To really open up this district as it should be both in the direction of the Bruas, on the south, Lasah, on the north and east, and Piah Lintah, on the west, at least two more European Assistants are necessary. I have every hope in seeing, in the next year or so, several more estates opened in coffee. Sir Graeme Elphinstone is desirous of selecting four more estates of 500 acres each, and I have little doubt that several more blocks will be applied for. An experiment that has been tried on Waterloo estates has answered very well. Here you will find 150 Chinese working at weeding the soil, handling the trees and picking the berries better, according to Sir Graeme, than any Tamil. These men are a very poor stamp of coolie, being those that cannot work in the mines, and are as a rule old gaol birds and pauper patients from the State hospitals. If really good men, of whom I am informed there are plenty ready and willing to come, were got down from China, it would certainly pay planters to give them equal pay with the ragamuffin set now doing such excellent work on Waterloo. Kuala Kangsar is not in a tin district; although there is tin in it, it is very pockety. I would earnestly beg the Government by everything in its power to push on planting in every form. There are acres and acres of padi land that only want levels to be taken for the natives to make the requisite *tali ayers* and *ampangs*, with slight help, in most cases, from Government; the enhanced quit-rent for which would repay the Government within three years. There are thousands of acres of land, the soil of which is quite equal to Kamuning or Waterloo estates, from the road level up to 1,200 feet, covered with splendid timber, easy of access, only waiting to be taken up. The roads are first class and with the railway at Chumor by the middle of 1896 the cartage from Kuala Kangsar itself by road will only be 22 miles, and from Kamuning and the land in its vicinity, only 10 miles. Putting down $200 per acre as the cost of opening up the first 150, and $80 per acre for every subsequent 100 acres, per annum, until 500 is planted up with coffee coming into full bearing within four years and yielding only five pikuls per acre at $40 per pikul, it does not take much calculating to prove that, with average luck, after the sixth year the owner of an estate of 500 acres would be drawing a very fine income, on an outlay of £6,000.

From the Batang Padang annual report for 1895, printed in the same paper, we extract as follows:—

One hundred and seventy-eight applications for new land in small areas, chiefly for coffee planting, were dealt with during the year.

Applications were also registered for 1,435 acres in large blocks for coffee and coconut planting.

The coffee in the district is generally looking and bearing well and I am certain that if we could only get a few planters to begin here there would be a great future before the district. Even in the short time that I have been here I have seen some magnificent land. Of course it is out of the way at present and wants opening up and if Government would undertake to make a cart-road, or even a bridle-path to begin with, provided a certain number of acres in any particular locality were taken up, I feel sure that planters would come in. If a bridle-path were made in the first instance and it was found necessary afterwards to turn it into a cart-road to deal with the traffic I see no reason why the Ceylon system of grant-in-aid roads should not be instituted. This, as far as I understand it, means that Government and the planters benefited pay half the cost of the upkeep each.

I cannot say that I am altogether in favour of giving out small areas to Malays for coffee, they will not work it properly, they allow weeds to grow up all over the land to the detriment of any neighbouring estate and if any disease appears the weakened coffee is a nursery for it, whence it spreads all over the State. Land has been given out near the railway station, which will, I hope, have the effect, when it is planted, of lessening the fever which is so prevalent in that part of the district.

TEA IN DARJILING—AND THE SCOPE FOR PRODUCING THE FINEST TEAS IN INDIA AND CEYLON.

The special object with which we made it our business to be present at a meeting of the Indian Section of the Society of Arts on May 14th, to hear Mr. S. W. Christison's paper on "Tea Planting in Darjiling," was to learn how far an increased production of fine teas might be anticipated in that quarter. The result was, we think, eminently satisfactory. The paper itself was a very full, instructive one, and exceedingly well-illustrated by lime-light views. But there was a great deal, of course, with no special bearing on the important question of future development. Mr. Christison, however, showed a map of the Darjiling district, with the tea gardens dotted over it; also of the adjacent district of Daling, in which only three plantations had been opened, and which he (the lecturer)—a plain, practical Scot of very long experience—pronounced unfit for tea; and thirdly of "the Dooars" at the foot of the hills, which are now being freely entered on and largely opened up, but which cannot be deemed a "fine tea district." In the cour e of his paper—an early copy of which is sent you for republication—Mr. Christison mentioned that the Government returns show 329 square miles in Darjiling as "grants for tea cultivation," or one-fourth of the whole district; but one-thirteenth, or 7½ per cent, is actually bearing tea so far. In the Daling hill district (which properly may be coupled with the Dooars) only 1,200 acres have been opened in tea, so unsuitable are the soil and country generally. In Darjiling proper, there are now 180 gardens with about 55,000 acres planted and giving employment to 70,000 natives, "excluding children and other non-workers." The 1895 crop from this acreage equalled 10,771,117 lb. Among other novel experiences mentioned by the lecturer were the fact that often the steeper—extremely steep—ground grows the better tea, due to natives having frequently used the gentle slopes; and also that then sturdy hillmen capable of carrying a box of tea over 120 lb. weight up 2,000 and sometimes 3,500 feet of their climbing from garden to railway, gave in, fatigued after half-a-mile of *flat* walking! From childhood in that steep broken country, the muscles for climbing up and down alone are developed. Mr. Christison does not consider the question of manuring a pressing one in Darjiling; for, there, not more than 12 cwt. of green leaf per acre is taken from the soil annually on an average (or 336 lb. made tea per acre)—rather different from nearly 40 cwt. of leaf sometimes gathered on Mariawatte for instance. But the lecturer said very truly that the Darjiling tea crop is neither heavy nor exhausting, and nitrogen is freely returned to the soil in the rain in tropical and sub-tropical lands. All this is equally true as to crop (and rains, &c.) in the higher districts of Ceylon with their fine tea production.

Mr. Christison had a good deal to say about transport, and also on buildings and machinery—several allusions being made to Ceylon—and again on tea preparation, especially the fermentation or "oxidation" in which he evidently thinks, as in regard to preparation generally, there is room for experiments and improvement. The fine quality of Darjiling teas, he considered to depend on the soil, vigour of the bushes, variety of plant, elevation, and season or weather; but also on unremitting care in preparation. He considers "the chemistry of tea," —notwithstanding the valuable efforts of Mr. Kelway Bamber and others—to be "practically an unexplored field of investigation." He considers pure Assam or a high-class Hybrid as not suited to give the true Darjiling flavour in the tea—a blend from China and Hybrid plants has proved best at that high elevation. Mr. Christison had much to say about "labour"—a growing difficulty in Darjiling as elsewhere. He spoke in the highest way of the Nepaulese as workmen; but the supply of men is falling off, owing to recruiting for Police and Government transport purposes. The wages are 5½ to 6½ rupees a month for men, 4½ to 5 for women, and 3 rupees for boys, and on this—particularly with helps from extra tasks—money is saved and the coolies live with great comfort.

In the discussion that followed—three past Lieut.-Governors of Bengal—Sir R. Temple (Chairman), Sir Stuart Bayley and Sir Charles Elliott—all bore testimony to the great importance of the Darjiling Tea Industry in developing the country, benefiting the natives and aiding the Government; and in respect of "labour," it was shown that, officially, great pains were taken not to interfere with the planters. But the Nepaulese immigrants were naturally growing more enterprising, and found that even better wages could be got by going further into India. Above all, the officials congratulated the Darjiling employers on not being hampered by a Labour Law, and warned them not to ask for it! The curse of the Assam Labour system were "the middlemen" who took care that each cooly sent there cost R100 a head, whereas the Emigration Agents for the Colonies got the same coolies to Calcutta, ready to ship at an outlay of about 15 rupees a head! The difference did not benefit the cooly or the Assam planter; but went into the pockets of the middlemen. In respect of tea extension, Sir Charles Elliott gave it as his opinion that not much could be added to the area under tea in Darjiling, although individual planters might add 50 to 100 acres now and then. It was on this point we specially wanted to get information; and so, on being called on by the Chairman during the discussion, we ventured to point out that the 55,000 acres now cultivated (giving 10 million odd lb. per annum) only represented a small proportion of the land actually in private hands; for, Mr. Christison had said the grants to gardens equalled 329 square miles or say 210,000 acres. True, Sir Charles Elliott had indicated that planters might add 50 to 100 acres to their tea gardens; but if this were done at an average by 100 (out of 180) gardens and averaging 50 acres each, we should get 5,000 acres a year. There was also the question as to whether among large forest reserves mentioned by Mr. Christison, there was not good land suited for tea which might yet be granted for gardens. In reply, Mr. Christison gave it as his opinion that the present output of Darjiling tea—10 millions—was not likely, at any rate for some years, to be materially increased. And in private conversation with him after the lecture, we gathered that "labour" was really one great difficulty in the way of extension, while, also, as a matter of fact, all the best land in the grants had already been utilised. *But*, Mr. Christison was equally frank in saying that there was some very fine land in the Government reserves and neighbourhood of Darjiling, which, with a little official trouble, might readily be made available for tea; and, if so, would be quickly taken up and opened. For the present, however, we

gathered that there is no prospect of Darjiling increasing its fine supply of fine teas to the London market.

Talking after the Scottish Ceylon meeting with Mr. Donald Andrew—who has had a prolonged experience in Southern India—we found he quite agreed that the area in the Nilgiris district for fine teas could not well be largely extended nor could much be looked for in the higher portions of the Wynaad, Ouchterlony Valley, etc., although in the rest of these districts, no doubt, there is scope for a very considerable development of tea cultivation. Contrary, therefore, to the opinion recently expressed by Sir John Grinlinton, we have arrived at the conclusion that there is not much fear of any special increase in India of the production of *fine teas* calculated to compete with the fine high-grown teas in Ceylon, which distinguish a great part of Dimbula, Dikoya, Maskeliya, Maturata, Ramboda, Udapussellawa, New Galway, Haputale West, and the region still higher up. This is an important matter; but at the same time planters, in the region specified, quite understand that if they are to keep up the reputation and prices of their teas, special care and attention must be given to cultivation, plucking and preparation, and they must aim at "quality" rather than "quantity," as Mr. Hancock (of the well-known Mincing Lane Broking House) well reminded us at the Society of Arts meeting. J.F.

COFFEE IN CEYLON AND AFRICA.—In the *Bombay Gazette Budget* we read :—However well coffee planters in Ceylon may have succeeded in the last year or two in overcoming the leaf-disease that so completely changed the economic conditions prevailing in the Island twenty years ago, there is no likelihood whatever of coffee taking its old place as the chief economic product. Ceylon tea has so well established itself in the European markets, and its cultivation is so free from the uncertainties attending coffee planting, that the colonists are not likely to return to the old love that played them so falsely in the past. The fragrant berry seems to have a much better chance before it in British Central Africa, where its production is increasing by leaps and bounds. The single plant which was taken out to Nyassaland a few years ago by a Scottish gardener is now the parent of many millions of trees, and it is estimated that this year no less than three hundred and twenty tons of coffee will be available for export. This estimate is contained in a report addressed to Sir H. H. Johnston by Mr. M. Master, the sub-commissioner in charge of the Blantyre district. It remains to be seen whether the industry will prove as profitable to those who have invested money and labour thereon, as was the case with the pioneers of coffee planting in Ceylon. At present, great difficulties stand in the way of the planters, foremost amongst them being the decrease in the available supply of local labour and the consequent rise in wages. The planter now has to pay no less than five shillings a month—or its equivalent—to his native "boy," as against the two shillings a month which about a year ago was the local rate of wages in coffee plantations in Central Africa. Land, too, in the township of Blantyre has doubled or trebled in value during the past twelve months, and other economic changes are taking place which, so far as the immediate future is concerned do not augur well for the planters.

INDIAN PATENTS.

Applications in respect of the undermentioned inventions have been filed, during the week ending 16th May 1896, under the provisions of Act V of 1888.

AN IMPROVEMENT IN THE METHOD OF PACKING TEA.—No. 169 of 1896.—Henry Sabow, engineer, of Kurseong, in the district of Darjeeling, Bengal, for an improvement in the method of packing tea, to be called "H. Sabow's patent vibrating tea packer.,'

IMPROVEMENTS IN TEA LEAF-ROLLING MACHINES.—No. 172 of 1896.—Samuel Cleland Davidson, merchant' of Sirocco Engineering Works, Belfast, Ireland, for improvements in tea leaf-rolling machines.

Specifications of the undermentioned inventions have been filed under the provisions of Act V of 1888.

IMPROVEMENTS IN OR CONNECTED WITH MACHINERY OR APPARATUS FOR DRYING TEA LEAF OR THE LIKE.—No. 108 of 1896.—William Jakson, engineer, of Thorn Grove, Mannofield, Aberdeen, North Britain, for improvements in or connected with machinery or apparatus for drying tea leaf or the like. (Filed 11th May 1896).—*Indian and Eastern Engineer*, May 30.

SHAN TEA SEED.

Whether the promising outlook that Indian tea has assumed since Easter will be sustained or not remains to be seen, but certainly there appears every prospect that for this year, at any rate, tea will maintain the profitable position it has occupied for the past two seasons. This will doubtless beget a fresh insistence on further extensions and consequently a corresponding demand for seed, and as no one in a position to plant will look at other than the best kind, there is likely to be a dearth of the favourite (so-called) Munipuri seed. True, many of the new gardens planted during the past decade have been put down with this, but, as we pointed out three years since, it by no means follows that the seed from these will produce seedlings of the same standard, for wherever thrown up plantations of the old kind of hybrids exist in the neighbourhood, hybridising must to a greater or less extent, take place, though, perhaps, for the next two or three years the deterioration may not be very apparent; still it is going on and in the natural order of things, will increase each successive season. It would be as well therefore if arrangements were made to ensure future supplies of seed as uncontaminated as possible.

Munipuri, itself, the Hukong Valley and the eastern ravines of the Naga Hills, in and around Swemi abutting on the valley of the Maglung, are capable of furnishing a large amount of pure seed, but cannot be expected to meet the whole demand, hence it would be as well if measures were taken during the rains to ascertain what quantity may be procurable from the Shan States, of which we heard so much a few weeks back. The Nagas of north-western Burma, unacquainted with the value of the tea plant, have destroyed whole tracts by their pernicious method of clearing by *jhuming*, or there would have been an unlimited supply derivable from the Hukong and its neighbourhood. But the Shans, though not actually cultivating tea, conserve it, though pruning pretty severely should still have no inconsiderable stocks in their valleys, and as the country is not an unhealthy one to travel in (even during the rains), there should be little difficulty in securing the whole crop. We could certainly depend upon the purity of this supply, and plantations established in Travancore, or, still better, the Andamans and Tenasserim, would furnish sufficiently isolated spots, to guard against contamination.

Much, of course, could be done to preserve from hybridisation, the recent additions to the Assam gardens if sufficient labour were available to pick off the blossom from the thrown up plantations in the autumn, or severely cut back the plants below the flowering point; but, on the whole, we incline to the opinion that the better plan would be the adoption of the isolated seed gardens we recommend.—*Indian Planters' Gazette*, May 23.

COFFEE IN NORTH BORNEO.

Mr. Henry Walker writes to us:—I visited Mr. Edward Walker's estate in Morudu Bay on the 4th May. I was staying at Toritipan coffee estate belonging to the Borneo Coffee Company, when Mr. Walker came over to visit the manager, Mr. Schuck, and I was glad to have the opportunity of visiting a coffee estate opened by a Ceylon planter. We left Toritipan early in the morning and were accompanied to the estate landing place by the Messrs. Schuck who had supplied us with a good sailing boat (and four coolies) in which we dropped down the small creek which runs about a mile and a half to the sea, at the entrance into which stands the Toritipan village. We had a fair wind, and putting up the nipa-leaf sail we soon passed the police station at Tanjong Batu, where the contract steamer "Normanhurst" calls four times a month on her coasting trips, and by twelve o'clock we arrived at the mouth of the Menpakad river, which runs through Mr. Walker's estate. We landed at the Campong of Bajows, who are the fishermen of Borneo, and proceeded along a bridle track, and up the rising land on which the estate stands, and reached the bungalow in twenty minutes. I went down to the stream at once and found a pool in the shade of the jungle where I got a lovely bath, and then came back to breakfast. In the evening Mr. Walker took me through a part of the clearing to see the country at the back, low rolling hills with easy slopes, mostly covered with second growth, but within about a mile of the sea there is big jungle. The soil appeared to be similar to Toritipan, but not so rocky: indeed, I saw no rock except in the river. The soil is of a rich dark red or chocolate colour with a greasy feel when wet, but when dry it pulverizes and granulates in a most curious way, and, when a heavy rain comes on, it sinks into the ground at once, and there is little or no wash. A most suitable soil for coffee, as is now proved by the splendid trees at Toritipan. Mr. Walker has felled about 50 acres of small jungle and the ground is very clean, although the weeding has not yet been fairly taken in hand. A little clearing up and burning remains to be done. Holing has been commenced, ten feet apart, and the coffee nurseries are coming on nicely. Planting will probably be finished in July: indeed, a few plants are already out and look healthy. Mr. Walker finds it best to use small shingles for shade as done at Toritipan, and as the coolies can cut them at 70 cents a thousand the expense of shading is not great, especially as the shingles can be used again. So far Mr. Walker has had no trouble about getting labour. The Dusun villagers near the estate number about 500, and at Pingan Pingan, two and a half-miles distant, the village contains 1,000 Dusuns who are willing to work at prices which give them about 16 cents a day. Mr. Walker tries to do everything by contract, which does away with the necessity of keeping hours to which the ordinary native objects. They work well but like to go to work and knock off at their own time. Mr. Walker tells me he expects to bring the coffee into bearing for 10 pounds sterling per acre. He pays \$2·25 per acre for felling, and for the clearing up, burning, holing and one weeding he gave out a small contract at \$5 the acre. Clearing up and burning depends on the kind of jungle; for holing the price is one cent for four holes and the weeding will be done for under one dollar per acre per month. At Toritipan the bungalow field is now weeded for 80 cents and there appears to be no reason to pay more after the weeding is well in hand. Mr. Walker's bungalow is 28' × 32', plank floor, kadjan walls and atap roof; it is well raised from the ground and later on a dining-room will be made below the present floor. The cost, so far, has been, including kitchens, under \$150. As regards food Mr. Walker tells me the chief, Serif Duya, kills cattle several times a month and always sends some meat for which Mr. Walker invariably pays. Fowls and ducks can always be bought, besides which there is already a capital poultry yard at the bungalow. I saw a good many villagers passing the bungalow on the path to the fishing village laden with vegetables, which include melons, sweet potatoes, yams, and beans. Fish is plentiful at three cents a pound. We called in at one house and asked for water, which was presented in a glass and the woman who filled it wore a dirty jacket trimmed with a sort of lace. The house was little better than a birdcage, but as it was only intended to last for one padi crop, or at most two years, little trouble was expended on it, and the number of people living in it was astonishingly large for the space available. The people seemed well nourished and the children I saw were fat. The padi in the house was particularly good, and judging by the length of the straw I should say the crop must have been large, which one would expect from the richness of the soil.

Mr. Walker says he finds the place healthy. He has had fever, but he is looking very fit and has put on weight since last September when he came from Ceylon. Medicines are obtainable at the hospital in Kudat but at very high prices, and it is better to import supplies. Dr. Hoare of the London Borneo Tobacco Estates proposes to establish a convalescent hospital at Tanjong Batu which would serve for the estates generally, and such a scheme would doubtless be supported by this estate and by Toritipan as well as by the Lang Rom Tobacco estate.

Kudat is about fifteen miles distant across Morudu Bay, and the path to Pitas Tobacco Estate, where there is a doctor and four planters, is some ten miles (unmeasured) distant. I suppose, in Morudu Bay, and at Pitas, the number of Europeans is now about forty. Tobacco planting is, however, a close and engrossing pursuit, and except on pay days, which occur on the 1st and 16th of the month, the tobacco planter knows little cessation from work. I should mention, however, that they get a good deal of sport, as I know two who have killed over eighty deer in Moduru Bay, and one who killed many rhinoceros on the Kinabatangan. Of course, on the coffee estates Sunday is observed as a day of rest. Since he began to open here, Mr. Walker has killed eleven sambur deer and two kijangs, and along the coast there are lots of curlew. On the estate itself, and in the padi clearings round about, pigeons of several kinds are plentiful, and the Bay affords variety in boating. The path from Menpakad to Toritipan is fourteen miles long. Mr. Schuck has ridden it, but it was difficult work. As it passes through good soil for coffee. I expect to see more estates along the sides of the Bay, and the opportunities for social intercourse will then increase.

Having suffered severely from the strong winds which mark the monsoon in Ceylon, in days now long gone by, I should like to say that so far I have never seen any damage done to coffee by wind in North Borneo, nor do I think there is any part of the territory wind-blown, as is the case in Ceylon.

NOTES FROM THE METROPOLIS.

SOUTH KENSINGTON, May 8.

SIR JOHN MUIR AND DIMBULA VALLEY ESTATES.

The great news before the little Ceylon planting world in London during the past few days is that Sir John Muir, Bart.—in the matter of the Elgin and Belgravia estates transfer—has given way, as Mr. James Sinclair and his co-directors always said he would, supported by everybody on this side, who were at all cognisant with the facts of the case. No doubt, Sir John was not aware in Ceylon of all that had transpired here, and he was also, perhaps, the recipient of bad advice—at any rate, our contemporary was in stating so prominently and persistently that the sale was broken—that the transfer could not take place, and so on. You have had the answer to this before you ere now, for on Wednesday, May 6th, the Secretaries of the Sylhet Company wired to their attorney in Colombo to transfer Elgin and Belgravia on the terms agreed upon originally—so now everything must be smooth sailing. There can be no

question the Dimbula Valley Tea Company acquired those properties at a bargain, but that that should be a reason for repudiating the sale was a ridiculous idea, to say the very least. There is not an acre of poor soil on the whole group of this company—the properties are all high class and as one old Ceylon planter who owns shares put it,—"when the Dimbula Valley Company ceases to give handsome dividends, God help the Tea Enterprise in Ceylon!" In any case, the Company's first sale of tea a few days ago at over 1s average is a good augury; and clearly

MR. JAMES SINCLAIR

has every faith in it, as his not having taken a penny out of the sale of his places shows. Not only so, but I hear that his three sons are large shareholders and many personal friends besides. Mr. Sinclair's "bread and butter" must depend on the success of the Company; and if he had no other incentive than this the shareholders might rely on his leaving no stone unturned to make the Company a success.

CEYLON AND ORIENTAL ESTATES CO., LD.

The satisfactory report, which I sent you by last mail, was duly passed by the shareholders at the meeting yesterday of "The Ceylon and Oriental Estates Co., Ld." I was not able to be present; but a friend who was there sends me the following notes:—

"The chairman (Mr. H. C. Smith) had practically nothing to add, beyond what the report contains, except that the current year had begun well, and that the crops (tea) secured for January, February and March showed an increase over the like months in 1895 of about 25 per cent. After a few ordinary questions had been asked and answered the report and accounts were adopted; then followed the passing of the dividends, re-election of directors, and election of auditors, and the proceedings terminated with a vote of thanks to the superintendents and directors."

TEA SHIPMENTS FROM CEYLON FOR MAY.

The heavy shipments of tea telegraphed as likely to be made from Colombo during May (10½ million lb.) may temporarily affect the market here; but the prospect for the year as a whole continues good, even in the face of the increased crops estimated for India and Ceylon.

MR. WELTON.

The gentleman who amended and seconded my proposal of thanks to the directors and officers of the Eastern Produce and Estates Co. was I find Mr. Welton, undoubtedly the well-known liquidator of the Oriental Bank, and it would be interesting if the opportunity presented itself to ask him when the long expected dividend is to be paid in which so many people are interested.

At a meeting in the city yesterday of the

IMPERIAL CEYLON TEA ESTATES CO.

—at which the decision was taken to complete the purchase of the Binoya estate—I had the pleasure of meeting Messrs. R. A. Bosanquet and G. E. Worthington, both looking very well, especially Mr. Bosanquet, who reported that he had so thoroughly recovered the use of his broken limb as to be able to ride a bicycle with comfort and advantage. I had afterwards just time to shake hands with the veteran Mr. John Tyndall who looked both hale and hearty and reported that that still older veteran, Mr. John Capper continued to be able to move about with ease. In the office of Messrs. Darley & Butler besides Mr. Theodore Stretch, a former merchant of Colombo, I met Mr. MacMartin and Mr. J. Maitland-Kirwan, and the latter is as hopeful as the promoters of the Acme Tea Chest, that his patent for tea packing boxes will yet become popular and freely used in Ceylon; it is making its way gradually in the meantime.

CEYLON TEA FOR AMERICA: COMPLAINTS AS TO QUALITY.

I was sorry to hear from more than one quarter that certain shipments of very poor Ceylon tea have been made to America, so indifferent indeed that in one case an American tea-dealer said that he felt inclined to throw it into the street rather than serve it to his customers. Whatever may be said about the custom of sending poor Ceylon teas to England or Australia, in the case of America to do so at the present time when we are trying to conquer the country for our teas is absolutely suicidal, if not wicked; and the Ceylon Planters' Association ought to offer a reward for the discovery of the shipper, who is doing his best in this way to undo the work of the Ceylon Tea Fund and discredit the colony. It is difficult enough to force on our good teas in America, but if the attempt is made to send trashy stuff across the Atlantic on account of cheapness, farewell to the hope that a striking advance can be made during the next few years. In this connection I have had confirmation of the extraordinary rates charged for advertising in the United States—far above anything known in England, and as a consequence, showing the much greater importance attached to, and the competition existing for, advertising among the commercial and trading folk over there. Mr. Mackenzie told me that the back cover of a popular magazine published in New York was let as high as £75 for one insertion of a page, advertisement. Well, now in England I do not think that half this amount is obtainable for the most popular of our periodicals. Cooper, Cooper & Co., the great tea-dealers, filled a whole page of the London *Times* the other day, equal in size, of course, to many periodical pages, but I do not suppose the cost was one-half that of the rate mentioned above.

MR. J. L. SHAND.

Mr. J. L. Shand is starting tomorrow, I hear, for Costa Rica on a mission which will occupy a couple of months, in connection with coffee-planting development, supported by a City Syndicate.

Some time ago I learned that there was a similar project in connection with the States of Colombia, for which Mr. A. H. Duncan might possibly be engaged to report on forestland, &c.: but this was a mistake, and Mr. Shand's is, I believe, the only mission.

DISADVANTAGES OF SAW SHADE.—A correspondent reminds us that shade of any kind is bad for tea, as the effect on flushing, as Bamber states, is decidedly prejudicial. The writer states that this is his own experience also both in Ceylon and South India for the last 15 years. Of course, where blight is so bad that tea won't flush at all, then the half loaf under shade is better than no bread in the open He further states that he has found shade in tea draw a weak, spindly flush, which does not liquor well. This is of course absolutely true, but we are not aware that we ever recommended the planting of *Albizzia stipulata*, or any other tree as *shade* for tea. What we advocate is the choice of this special tree when shelter-belts in or near tea are planted in lieu of either bluegums or grevellias. The litter, when cut down for fuel or thinning purposes, will greatly enrich the soil even without counting the beneficial effects of the root tubercles.—*Planting Opinion*, May 23.

THE HOME DUTIES ON TEA.

Evidently there is a strong party in the House of Commons that might be expected to support protectionist measures. The proposal, that while the present duty on tea should be retained against China and other foreign growths it should be annulled in the case of all British productions, is about as strong an instance of protectionist tendencies as could well be imagined. It can create no surprise that the Government refused to consider this proposition; but so long as it permits the present anomalous position here in Ceylon with regard to the inland grain taxation and the import duty on rice, so long must we regard it as content to strain at the gnat while swallowing the camel. For as regards the suggestion as to tea, its adoption would at least have favoured British subjects at the expense of the foreigner. As respects our rice and paddy taxes the injustice that exists is felt only by British subjects. But general opinion will be, we think, on the side of ministers in their refusal to consent to what was asked in the case of our staple. The planters of Ceylon and India are quite able to hold their own in the competition to which they are now exposed, without seeking for advantages which would be in opposition to the principle of Free Trade. As matters are as regards the import duties on tea, they have not only held their own, but have fairly beaten China out of the field. Whether the day may yet come that may, in the interests of British planters, demand a differential treatment in their favour, we cannot pretend to foresee. But, until it should arrive—if it ever do so—we conceive that there exists no desire to seek the advantage suggested. It is very certain, that, were once the door opened in the case of tea, there would be claims made of a similar nature for the protection of almost every other form of British production. We are by no means obstinately conservative as regards the principles of Free Trade. We cannot shut our eyes to the fact that Great Britain is severely handicapped by the refusal of foreign countries to grant reciprocity, and it is further open to argument at least as to whether some measure of protection might not be justifiably accorded in the interest of some of the agricultural industries of the mother country. But as regards tea it seems to us that we can afford to let well alone. It is very certain that, with present and prospective demands upon the Imperial revenue, the abolition of the duties upon British-grown tea must create a position of the gravest difficulty. And we agree too with the rebutting argument employed by the Minister who spoke against the proposal. The poorer classes in England are relieved altogether from any payment of direct taxation. But it is only fair that, in a degree and according to their capacity, these should contribute towards the expenditure by which they secure peace at home and protection abroad. It is only by taxation of some portion of the necessaries of life consumed by such classes that this contribution can be obtained. The duty on tea—in itself not an absolute "necessary" of life—must be as little felt as any import upon these could be. If it were abolished in preference to the taxation upon other articles of import, it would probably be compulsory to tax some other article which would be more a "necessary" than tea is. We do not think the proposition made has been wisely considered. And what is more, we doubt if it has been put forward chiefly in the interest of the tea grower. There are numerous intermediaries engaged in the tea trade who, we expect, would be the chief benefitters had such a proposition been adopted.

DRUG REPORT.

(From the *Chemist and Druggist.*)

London, May 14.

SEEDS (VARIOUS).—Of 33 packages Annatto-seed, none sold. For good bright Madras 5d per lb. would be accepted; West Indian was bought in at 5d per lb.

VARIOUS DRUGS.—Coca-leaves: No fine qualities were offered, although 60 bales were shown today. Brown Huanoco were bought in at 1s 6d, and 1 bale of ordinary dull greyish leaves sold at 1s per lb. Twenty-one cases very dark broken East Indian cuttlefish-bone sold cheaply at ¾d to 1¼d per lb. Twenty-eight bags dark Cubebs, without stalk, were bought in at 35s per cwt.

OILS (ESSENTIAL).—Citronella oil is still declining; sales of tins near at hand are said to have taken place at 1s 2d per lb., c. i. f. terms, while about eight tons in drums sold at the end of last week at 1s 3d per lb., c. i. f. London shipment, till end of September. Twelve drums Citronella oil (Schimmel's test) were bought in at 1s 4d per lb., while for 2 cases of Winter's brand 3d per oz. is asked

THE PASSING OF CINCHONIDIA.

The sudden demand during the past two weeks, which called for many thousand ounces of cinchonidia, revealed the fact, which was, without doubt, patent to close observers, that there was practically no stock on hand, and the question naturally arises, what is to be the outcome of the situation which has somewhat suddenly become manifest. There appears to be but one answer, and that is, the end of cinchonidia is at hand. It has seen its best days, and will soon be classed with the "has beens." The salt cannot be said to have lost caste with the profession and the trade, but, on the contrary, it has doubtless steadily grown in favor ever since its usefulness was discovered, and so long as a supply was obtainable its cheapness, as compared with quinine, made a steady, although not very extensive demand for cinchonidia. The Peruvian and Ceylon barks contained it in sufficient quantities to make it worth the while of manufacturers to market it, but since the quinine makers became obliged to confine themselves to the use of the Java barks, the days of cinchonidia have been numbered. In the selection of varieties of barks for cultivation in Java, particular attention was paid to those which yielded the greatest proportion of quinine, owing to the natural preference and ready sale for it in quantities greatly in excess of any of the other alkaloids found in the cinchona barks of commerce. This preference for quinine was doubtless in great measure traceable to the fact that it was the first of the alkaloids discovered, hence appealed more strongly to the manufacturing chemist as a means of profit, providing it proved to be of therapeutic value. Its value having many years ago been satisfactorily proven, little attention was paid to its associate alkaloids until about the year 1874, when Howard & Son of London became convinced, from a series of experiments made by the English Government in India, that it possessed properties which made it almost as valuable as quinine, if not equal to it in some respects. They also learned that the first in value, of the cinchona alkaloids, was quinidia: then came quinine, cinchonidia and cinchonia, in this order. As the first-named was obtained in such small quantities, little attention was paid to it, but cinchonidia promised a profitable return on the slight expense attendant on the methods employed for isolating it and preparing it for the market. Within a very short time after the announcement of its therapeutic value, Powers & Weightman determined to begin a campaign of education with a view to making an outlet for their accumulation of stock, which had been going on for years. Like every other judicious manufacturing chemist, they had saved everything in their manufacturing processes, that might some day prove of value, with the result in this case that they had a stock of many

hundred thousand ounces. They realized that the only way to reach the desired end was through the medical profession. They, therefore, sent out travellers to call upon physicians, they published and distributed a large quantity of literature on the therapeutic value of the alkaloid, and spent thousands of dollars in postage, distributing at least 100,000 ounces, if not more, to the profession. In due season came their reward, and cinchonidia assumed its place in the ranks of the drugs of known value. With quinine selling at $2.50 per ounce, they were very glad to dispose of cinchonidia at $1.30 per ounce. With comparatively little use for it in Germany, the makers there were only too glad to dispose of their product to the United States, and thousands of ounces per annum were imported into this country.

In a few short years, or in 1877, quinine commenced to decline in price, owing partly to improved processes of manufacture, and naturally cinchonidia began to be affected. It had been sold at one-half the value of quinine. When it had reached twenty-five cents an ounce, the manufacturers thought it was unprofitable to them, nevertheless they continued to save it, and marketed many hundred thousand ounces at two and one-half cents per ounce in bulk. The lowest price it ever reached being, so far as we know, one and five-eighths cents per ounce.

With cheaper quinine came a decrease in the demand for cinchonidia from the profession, but a demand had sprung up from makers of patent medicines, which steadily increased and prevented an accumulation of stocks for any length of time. A certain prejudice had arisen in the minds of many persons against quinine, which presented an opportunity to many vendors of proprietary medicines that they were not slow to take advantage of, and many nostrums made their appearance as chill remedies "containing no quinine," and obtained a wide sale. It is these remedies which will be hard hit by the changed conditions, and doubtless the demand for quinine will be correspondingly increased.

Cinchonidia has to some extent been used to adulterate quinine, but probably not to the extent that is popularly supposed. The manufacturers of pills cannot be accused of using it, as each one keeps such a close watch on the products of the other as to preclude the possiblity of any chances being taken. Cinchonidia pills are sold, however, being ofttimes prescribed. Indeed, some physicians prefer them, believing this alkaloid to be equal to quinine as an antiperiodic. Possibly it might have ranked with quinine in many other respects had not the impression been prevalent that a much larger dose than that of quinine was necessary in every case in order to produce the same effect. For years there has been a growing prejudice against large doses, and in favor of administering drugs in the most concentrated forms possible. Many physicians prefer cinchonia. It has been found to produce a more perfect cinchonism hence a better lasting effect, but the large dose necessary to produce the desired effect has precluded the possibility of its extended use.

With the relegation of cinchonidia to the ranks of past favorities will go quinidia and cinchonia, for the same reason, leaving the field to quinine.—*Oil Paint and Drug Reporter*, New York, May 4.

BECHUANALAND AND ITS PLANTING POSSIBILITIES.

Mr. Prior Palmer, of Dotel Oya, Aranayaka, writes to a contemporary :—

"The best proof of whether there is anything in what Mr. Macleod says, is that when our expedition was nearly over, Government offered any of us 10,000 acres of land free for ever; provisions, rifle, and ammunition for two years, also a horse, on condition that we would be liable to be called out for service at any time. Now, to my knowledge, not one took up the grant. I saw a good deal of the country, and, with the exception of a few cases, where there was some heavy timber, chiefly mimosa trees, there was nothing but poor sandy soil that would take 20 acres to feed a cow, and the only means of watering cattle would be by making huge dams, which are filled by means of artesian wells, worked by wind-mills. These are generally near large stores, where everything can be brought from a needle to an anchor. What rivers and streams we saw, were quite dry to the naked eye; but by scraping down a foot or so you got good water, and at long distances there were deep pools, where we used to catch large fish. As to growing coffee, I saw no land for that, and where is the rain? There winter is a hot sun in the middle of the day, with hard frost at night. I have often seen six men lying together, so as to get them six blankets to help for warmth, and in the morning their moustaches and whiskers were stiff with hoar frost.

That is a fine place for coffee! I was shewn one coffee tree near a Boer's house, and it looked very well, and had a good crop; but it was watered every day. I should think that, if Mr. Macleod happens to take any of my countrymen out to farm there, he will get a dose of mercury for his trouble; and I would strongly advise any Ceylon man to be very careful to give it a wide berth, as far as I saw of the country. There was good shooting in parts of Bechuanaland, and that is pretty well played out since I was there, I hear. One of the great things they grow there is 'water melons' which, as you know, require a very dry climate and soil."

MR. OTANI ON TEA.

The *Oriental Economist* prints an interview that a representative had with Mr. Otani, the leading tea merchant of Yokohama, on the subject of the tea industry. Tea manufacture, Mr. Otani confesses, is still very imperfect, owing to the ignorance of Japanese manufacturers of foreign taste. Manufacturers in Japan have left the firing and packing of tea to resident merchants from the very outset, until, it has come about that tea, no matter how excellent in quality, has to undergo re-firing at Yokohama or Kobe. Japanese tea before it reaches the latter ports is in a half-manufactured state. There is no question that Japanese tea must be improved in quality, and that before long. A law issued by the United States Government in 1883 against the import of deteriorated tea, was a signal to teamen in Japan that urgent step must be taken to improve the quality of their output. In that year the principal tea manufacturers and merchants of Japan held an extraordinary general meeting at Kobe to discuss the best way of lifting the industry from its low level. The result of that meeting appeared next year in the form of the Tea-Guild Regulations. In 1887, a Government notification dealing with the matter in a comprehensive form was issued. These efforts of the tea men and the Government have acted more or less beneficially in Shiznoka, where marked improvement has been achieved. Points in which improvement is now needed are as follows :—(1) Drying; (2) preserving from impregnation with smoke; (3) steaming; (4) storage; (5) adulteration of new tea with old; (6) discontinuance of the practice of picking leaves grown after the 3rd picking; (7) discontinuing the manufacture of inferior kinds of tea. Inferior teas mentioned in the 7th clause are mostly manufactured in Mino and northern Ise, and are sold for mixing with tea of a superior

quality. This mixing impairs the reputation of Japanese tea, and should be positively discontinued. Mr. Otani is not sanguine that Japanese merchants can for some time to come fire and pack teas for foreign export, seeing how much improvement is needed in the earlier stages. Nor could they hope to obtain the credit that is given to foreigners by their clients in the West, to which difficulty must be added the fact that they are very indifferent judges of Western taste.—*Japan Weekly Mail*, May 2.

EUCALYPTUS.

The uses to which eucalyptus may be applied are many, some of which are but little known. It is a genus of trees of the natural order of Myrtacae, and nearly all are indigenous to Australia, where they are called "gum trees" or "stringy bark trees," from their gummy or resinous products. But the tree mostly favored is encalyptus globulus, and is now very familiar in Europe, having been of late years extensively cultivated, especially in the Mediterranean region. But it was not introduced there until the year 1856, when seeds were sent to Paris. Now it may be met with in various parts of England, as visitors to Cornwall cau testify, for it is only in such a locality that it is able to grow without shelter. This tree has a specially high reputation as a hygienic agent in damp, unhealthy and malarious situations, and has, therefore, been planted in many parts of Europe. Its value has been alternately ascribed to the antiseptic action of its camphorlike odors and to its rapid growth, which sometimes exceeds ten feet per annum, and the consequent drainage of the soil through the enormous transpiration from the leaf surfaces.

Since the year 1870, when the tree was planted in its cloisters, the Monastery of St. Paolo a la tre Fontana has become habitable throughout the year, although situated in one of the most fever-stricken districts of the Roman Campagna. This property of destroying the maisma of marshy localities might be made use of in many districts to advantage and deserves the attention of those connected therewith, as it will thrive in any situation having a mean annual temperature not below 60 degrees F., and it will not endure a temperature of less than 27 degrees F. The leaves are the part mostly used in medicine, although they are not official in the British Pharmacopoeia.

The principal constituent of the leaves is a volatile oil, which may be readily obtained by distillation with water. When used for medicinal purposes the narrow leaves should be used, which are obtained from the full-grown tree, these being more efficacious than the broader ones, which are common to the younger plants. The fresh leaves are also more active than those that are dried. When fresh, they possess a bitter, pungent, camphoraceous taste, and the oil has a similar flavor and peculiar odour, more so than the leaves. When fresh, it has a yellow color, but it becomes brown and resembles resin by exposure to air; this appearance should serve as a test when purchasing. Oils obtained from other species are largely used in perfumery and for the making of varnishes, and for such purposes the color is not so much an object. As these essential oils are of daily increasing importance, their various characteristics should be observed and noted. The features of the chief are as follows:

The oil of E. amygdalina, is thin, pale yellow, pungent, lemon-like odour, specific gravity 0.881 at 15 degrees (59 degrees F.). becomes resinous in air. This oil is used in medicine, disinfecting and perfumery.

E. oleosa is thin fluid, pale yellow, mild, and has a turpentine flavor, mint-like odor; specific gravity 0.911.

E. goniocalyx, pale yellow color, pungent, penetrating, disagreeable odor, very unpleasant flavor: specific gravity 0.818. E. globulus already noted; this is the kind more frequently used medicinally.

E. citriodora.—This kind forms a good cosmetic. E. dumosa is an excellent kind for oil and spirit varnishes. The exudation from the bark and leaves of this species is often gathered by the natives from the ground beneath the trees, on which it lies like hoar frost; this is used by them as food. E. mannifera is also a sweet exudation from the bark and leaves, and comes into commerce as eucalyptus manna and resembles genuine manna, which is non-purgative and is sold as a sweetmeat in many parts of Southern Europe, especially in Sicily and Calabria.

There are many other kinds of eucalyptus which find their way into the market, but those named are the more important.

The properties of the leaves depend upon the volatile oil, some one or other of the alkaloids of cinchona barks, but experiments have gone to show that no such quality exists to any appreciable degree. The leaves have been largely used in the treatment of intermittent fever, especially in Australia, where they have long had a popular reputation. They have also been used as a stimulant and anti-spasmodic. The tincture and other preparations of the leaves have been found useful in bronchitis; and in the form of cigarettes the leaves have been smoked with good results, in cases of asthma, whooping cough and such like complaints. The leaves have also been used as a new method of dressing wounds in the place of lint. They are simply laid on the wounds, and it is said that their balsamic natnre not only cures, but removes all unpleasant odor. An excellent disinfectant may be made from 1 to 4 ounces of oil to a bushel of deal sawdust. The oil is also usefnl in rheumatism, and can be employed for inhalation in bronchial and throat affection, one-half to one teaspoonful being added to half a pint of water. The bark is said to have similar properties to the leaves for many medicinal purposes. It is also useful for tanning and dyeing, and may be used for the mannfacture of paper.

The timber of the eucalyptus generally is in demand, owing to its durability and the great power it possesses in resisting the attacks of insects and the influence of moisture. When first worked it is soft, but soon hardens, hence its great value. In Italy a liquor is made, and is in great request, while eucalyptus honey is said to contain the valuable characteristic of the tree.

It is, however, with the oil that we have the most to do, and care should be exercised in the purchase, as it is subject to adulteration, which is difficult to detect.

As a general characteristic it should be noted that the genuine article is either colorless or of a pale straw yellow, becoming darker on exposure, aromatic odor, a pungent, spicy taste, leaving a sensation of coldness in the mouth, neutral to litmus paper, sp. gr. averages nearly .900, and it is soluble in an equal weight of alcohol, but the oils of commerce vary somewhat as to their specific gravity, according to their botanical source; with this exception, the other characteristics may be relied upon.—*British and Colonial Druggist.*

SPRING VALLEY COFFEE CO., LD.

We call attention to the annual Report of the Directors of this good old "Coffee" Company, —one of the late Mr. John Brown's creations as a Limited Company for the leading Uva plantation some thirty-three years ago and which long had a career of great prosperity. Then came the dark days of "coffee" and the "Spring Valley," like so many "coffee" Companies, fell to a rate below par that made them like a drug in the market. But it is pleasant to find that the wave of prosperity which "tea" has brought, is bringing nearly every old Ceylon Company once more to the front. The shares of the Eastern Estates and Produce Company, those of the Uva "Coffee" Company, and now those of the Spring Valley "Coffee" Company are all considerably above par, and the report in the present case shows that the last mentioned not only earned a 5 per cent dividend last year but carries forward £2,595 (or the equivalent of nearly 2 per cent) to enable tea planting exten-

sions to be carried out. The Company has now 1,361 acres under tea, and 538 acres still under coffee, besides 354 under fuel, forest patana, and waste. Mr. Alfred Brown has succeeded his father as the efficient Managing Director, Mr. Norman Stewart (one of Mr. John Brown's original partners in Glenalpine) being still on the board; and besides Mr Leon Famin, we have now Mr. P. C. Oswald, so well-known and esteemed in Ceylon as Banker, but now of Messrs. Oswald and Nevett, London, merchants. Mr. J. Alec Roberts has long been the trusted Secretary of this Company and that of "Uva" and both have entered on a new era of prosperity —long may it continue. J. F

THE OUVAH COFFEE COMPANY.

We also publish today the report of the directors of this Company which shows an excess of coffee secured over the estimate, and an average sale of 93/5 per cwt, against 99/8. The tea yield was slightly below the estimate, but it fetched 9·08d per lb. against 8·66d in 1894. Cocoa, however, sold at 48/9 against 60/4 for the preceding year. Net profits are returned as £11,068. A final dividend of 5 per cent is recommended, making 8 per cent for the year. Two sums of £1,000 each are to be written off cost of estate purchased and of the Badulla Tea Factory.

VARIOUS PLANTING NOTES.

THE CITRONELLA CASE.—We understand that the citronella-oil arbitration-case, which has been referred back by the Queen's Bench division to the two drug-brokers under, circumstances already reported, will be reconsidered by those gentlemen on Tuesday morning next.—*Chemist and Druggist*, May 9.

THE CULTIVATION OF COTTON IN EGYPT.—M. de Vilmorin, the well-known French seedsman, who has been travelling in Egypt the last two winters, has submitted a very interesting report on the cultivation of cotton in that country to the French Société Nationale d'Agriculture. The regular cultivation of it does not date beyond the first half of this century, and a great impulse was given to it by Mehemet Ali when the various inland canals were cut to regulate and equalise the annual overflow of the Nile. In order to show his colleagues how rapidly the growth of cotton had increased, M. de Vilmorin included in his report a table showing that the quantities exported to Liverpool had risen from 15,000 bales (of about 6½ cwt each) to 79,000 bales in 1850, to 109,000 in 1860, to 220,000 in 1870, and to 240,000 in 1880. The cotton crop is, M. de Vilmorin adds, of an average annual value of about 10,000,000*l*, and it extends over an area of more than 1,000,000 acres, with a tendency to extend each year. Nearly all the cotton grown in Egypt is cultivated as an annual plant, being sown in March and gathered in from September to December. M. de Vilmorin goes on to point out that careful studies as to the best methods of cultivation, the most desirable varieties to grow, and the most effectual means of destroying the enemies of the cotton plant are being conducted, and that the more enlightened growers are beginning to use plenty of artificial manure. The Egyptian cottons are, in M. de Vilmorin's opinion, merchandise *sui generis*, without any precise equivalent in the world, and likely to be in great request among the manufacturers of cotton goods. He points out, by way of conclusion, that although the development of cotton cultivation in Central Asia may deprive Egypt of a portion of its trade with Russia, there is little chance of the Turkestan cotton competing with that of Egypt in the markets of Western Europe.—*O. Mail.*

DR. TRIMEN'S RECENT REPORT.—A Bombay contemporary speaks in terms of praise of the annual report of the "Botanical Gardens under the Government of Ceylon" as dealing with questions of prime importance to the mercantile community of the island. Reference is then made to the figures dealing with the tea and coffee crops for the year.

CINNAMON.—The demand for cinnamon, says the *Home and Colonial Mail*, has outstripped the supply within the last four months, and the position of the article is a healthy one with price 1d to 2d per lb. higher than they were in May, 1895. Cinnamon chips are likewise proportionately dearer, in spite of enlarged receipts and accumulating stocks.

LIGHTNING AND TREES.—Investigations made by Dr. Carl Müller, and reported in Himmel und Erde, show that lightning prefers to strike certain kinds of trees. Under the direction of the Lippe-Detmold Department of Forestry, statistics were gathered showing that in eleven years lightning struck fifty-six oaks, three or four pines, twenty firs, but not a single beech tree, although seven-tenths of the trees were beech. It would seem, then, that one is safer in a storm under a beech tree than under any other kind.

"BANANA FLOUR has been lately adopted in the manufacture of yeast. From its richness in starch and good flavour it is to be particularly suitable for such a purpose. The yeast is of a good colour, and has the requisite properties for keeping well." So writes a trade paper on this wholesome product. With regard to the banana being rich in starch, this is an error. As a matter of fact its freedom from starch renders it the most wholesome, easily digested, and nutritious fruit grown. Banana flour forms a splendid food product, and cannot be praised too highly.—*The Fruit Grower*, May 13.

NILGIRI PLANTERS AND THE LADYBIRD BEETLE! —At a meeting of the Nilgiri Planters' Association held on the 16th inst., at Ootacamund, it was decided to ask Government for assistance in procuring the lady-bird beetle from Australia or the Sandwich Islands, in which latter place it has been found very effective in destroying the scale bug on plantations. Mr. H. O. Newport, a member of the Lower Pulneys Association, laid a paper on the subject before the Nilgiri Planters' Association, and Mr. Stanes gave a very interesting account from personal experience of the good effected by these beetles in the Sandwich Islands.

SWAMP LAND FOR LIBERIAN.—The, to outsiders apparently inevitable collapse of the Klang boom in Selangor has brought some curious facts to notice in the local papers. One is, as far as we can understand, that even 20 or 30 feet bogs will in time form excellent plantations for Liberian coffee. Messrs. Christie and Forsythe are bitterly blamed by the local planters for throwing up their land when they learned it was practically useless to think of planting it up until the place had been thoroughly drained, but how many years this latter operation would take no one could tell them. Mr. Carey, one of the Selangor spokesmen and Honorary Secretary to the local P.A., says, in other words, the whole fiasco is due to the wretched conceit of Ceylon planters pretending to know the true value of Klang land better than even the resident planters. It may be also deplorable ignorance on our part, but we cannot for the life of us understand what else Messrs. Christie and Forsythe could well have done. The usual custom for planters in districts outside Selangor is, we understand, to avoid wasting even ten years, if possible, before beginning to plant out in fresh forest land. *Autres pays, autres mœurs.*—*Planting Opinion*, May 23.

TEA IN CHINA.—The *Foochow Echo* says:—It is estimated that the value of the funds sent up-country for the purchase of the new season's tea is twenty lakhs of dollars. Included in this estimate is the value of the opium, lead, and piece-goods taken up by the teamen. The total is about the same as last year. We believe that the teamen have gone away well advised as to prospects, and with the depressing accounts of markets in London, Australia, North America, and Canada it certainly behoves them to be cautious about the prices they pay. They must be prepared for a lower scale to rule here, for assuredly foreign buyers cannot afford to run the risk of repeating their purchases at last season's rates.

THE WILD ORANGE AS A SUBSTITUTE FOR COFFEE.—It has been discovered that the fruit of the wild orange that grows on the Island of Benuion has the aroma of the coffee berry. At it costs less to raise the wild orange than regular coffee, naturally the planters are substituting the former for the latter, and the Government even has ordered that a great part of the highlands on the island be reserved for the cultivation of the new bogus coffee. One bright gleam on the coffee horizon is in the fact that the new berry will be so cheap that it will, if its culture succeeds, drive out chicory, and as an adulterant it is said to be much less vile than that staple coffee cheapener.—*Fruit Grower*, May 13.

A VALUABLE PALM, SO-CALLED.—It is stated on the authority of *Modern Society*, that Miss Helen Gould, the gentle maiden-millionaire, who takes a great pride in her conservatories, "has just committed a little piece of personal extravagance in the purchase of a very raro palm, for which she paid the sum of £7,000. This palm is a magnificent specimen of "Ravanola madargarvien!" (Ravenala madagascariensis), "and stands a little over 32 feet high, while it is nearly 100 years old." This species will be known to somo under tho name of Urania speciosa. It may not be generally known that the French term this palm "the travellers' tree," probably on account of the water which is stored up in the large cup-like sheaths of the leaf-stalks, and with which travellers are said to allay their thirst. The leaves are of gigantic size, somewhat like those of Musa Ensete, but arranged in two rows on opposite sides of the arboreus stem. [The plant is nearer to Musa than to palms. ED.]—*Gardeners' Chronicle*, May, 9th.

GOVERNMENT CINCHONA PLANTATIONS.—In the U.P.A. papers published in this issue will be found the answer of Government to the Association's letter of September last regarding the contemplated extensions of the Government Cinchona Estates. Sir Arthur Havelock has not been fortunately advised in his treatment of the question. Putting Sir M. E. Grant Duff's promises on one side, it is surely the height of absurdity to maintain that because an industry is languishing, therefore it should receive no help. It is just because cinchona cultivation is in a bad way that it would be extremely grateful for help of the kind advocated. The price of the quinine now sold to the public allows of Government paying a substantial, though reasonable, rate to private growers, which would do a vast deal to keep them from abandoning their estates altogether. There is more than sufficient cinchona under cultivation in Travancore, Wynaad, and the Nilgiris to provide all bark required for many years to come, but without full and accurate statistics, it is of course hopeless to get Government to believe this. We should advise the U.P.A. to first obtain the necessary information as to the Government requirements for the next few years, and the amount that could be supplied by private plantations, before making another protest. —*Planting Opinion*, May 23.

BITTER ORANGES.—The naturalist Gallesio was the first to trace the history of the orange, and the result of his careful researches he published in 1811 at Paris. According to this author the Arabs penetrating further into the interior of India than any foreign nation had done before, discovered the orange family flourishing there, and held in high esteem by the natives. From this point the Arabs conveyed the sweet orange into Persia and Syria, and the bitter orange, now called the Seville, found its way into Arabia, Egypt, the North of Africa and Spain. From these points the orange travelled into other countries, notably China, and in this latter empire it so flourished and spread, that by-and-by it came to be a fiction, believed in by Europeans, that the orange was indigenous to China. Gallesio shows, however that the so-called 'China Orange' is by no means a spontaneous production of that country, and his statement is further corroborated by the absence of all mention of this fruit in the exceedingly minute and circumstantial account given by Marco Polo of the productions of China. The sweet orange which the Arabs carried to Spain spread thence into Portugal, Sicily, St. Michael, the Mediterranean Islands, and the West Indies. In each and all of these various places has the difference in climate and soil produced varieties and changes in the characteristics of the original common stock. On the banks of the Rio Cedeno, in the midst of a great forest. Humboldt, to his amazement, came upon a broad belt of wild orange-trees laden with large, sweet, and most delicious fruit. "Surely.. these must then be indigenous to the soil," he thought; but subsequent inquiry led to the discovery that these grand old trees had once formed a portion of extensive groves planted by the Indians from seeds obtained from their early Spanish visitors and conquerors. And to this same source does Florida owe her beautiful groves; only there, whether by the accident of soil or seed, the wild fruit is sour, not sweet. I am indebted for tho above information to *Florida Fruits*, published in Louisville, U.S.A. *W. Roupell, Harvey, Lodge, Roupell, Park, S.W.—Gardeners' Chronicle*, May 9th.

THE GOVERNMENT OF SOUTH INDIA AND CINCHONA PLANTING:—The Indian mail has brought us to day a copy of a Government Order, in reply to a letter from the United Planters' Association of Southern India in September, 1895, submitting a resolution in which it was represented that the Government should obtain its bark from private owners instead of re-planting the existing plantations or purchasing new estates. It was incidentally stated that a promise that such a course should be followed was given by Sir M. E. Grant Duff. The order proceeds:—The Government has not been informed to what oral or written communication of Sir Mountstuart the Association refers, but presumes that reference is made to his reply to the Address presented in January 1882 by the members of the Nilgiri Planting and Mining Association. If this presumption is correct, the Government is unable to find in Sir Mountstuart Duff's utterance any distinct pledge or promise of the nature indicated by the Association. In any case, the Association over looks the fact that circumstances have materially altered since 1882. The Cinchona industry has languished for a considerable period and so far as the Government is aware no large areas have been planted up of late years by private owners. On the other hand it has been decided in the interest of the general population that Government should itself take active steps to secure the production of quinine at a cost sufficiently low to admit of its being widely disseminated in a suitable form amongst the poorer classes throughout the Presidency, and more especially in malarious tracts. Such dissemination would be impracticable if the Government merely purchased cinchona bark from private owners or bought quinine in the open market. In these circumstances, His Excellency in Council does not consider that the United Planters' Association has any reasonable ground for complaint and is unable to accede to the request which it makes.

TRINIDAD ROYAL BOTANIC GARDENS.—The Bulletin of Miscellaneous Information for April has the following contents:—Water-Cress, Artichokes, Roses (Extract), Sisal Hemp, Notes on Manuring (Extract), Introduction of Lodoicea Sechellarum, Robbery and Murder, Circular Notes: No. 30—Sguar Cane Seeds, Water Measures and Rainfall (Extract), Jamaica Drift Fruit, Gordon's Coffee Machines, Chrysanthemums, Natural History Notes: No. 25—Corbeau in Error, No. 26—New Coccids, No. 27—Snake Bites (Extract), "Tabasheer."

INDIA AND CEYLON'S TEA CAMPAIGN.—The *Bombay Gazette*, referring to the prospect of Ceylon's losing India's help in fighting a common cause in America in consequence of the difficulty of finding the funds necessary for keeping a Commissioner in America, says that surely the best way of meeting that difficulty will be for the India and Ceylon Association to amalgamate as was proposed from Calcutta in the first instance.

INSECT ENEMIES OF TEA AND COFFEE.—We have received from the Indian Government No. 6 of Vol. III of "Indian Museum Notes," containing Miscellaneous Notes from the Entomological Section, by E. C. Cotes, Deputy Superintendent, Indian Museum. Figures are given of various insects of economic importance in India, among them being two enemies of coffee, *Sericea pruinosa*, Burm., and *Agrotis segetum*, Schiff.; a troublesome pest on cinchona and coffee bushes in Ceylon, *Cremastogaster dohrni*, Meyr.; and the green bug (*Lecanium viride*, Green) of Mr. E. E. Green.

COFFEE IN BRITISH NORTH BORNEO.—In sending us the interesting letter which appears in another column Mr. Henry Walker writes in a private note:—

I may honestly say that the difficulty I had experienced in advising young men to come here is passing away. We are proving at Taritipan that labour can be obtained locally, and Edward Walker is proving it here, and I feel that I can now conscientiously advise people to come here. Good soil, good coffee, good food, and good health with a fair chance of profit is what can be obtained; and I shall be glad to give information about our territory to anyone who is inclined to come here. I intend to make a short trip to the Native States, and then leave for Europe.

We are glad to hear of the brighter prospects of "New Ceylon."

RUBBER CULTIVATION IN CEYLON.—The *India Rubber World* of May 10, in quoting the letter addressed to us some months ago by Mr. C. Purcell Taylor, says:—The following communication in the *Tropical Agriculturist* (Colombo) may possibly serve to throw some light upon the slow progress made in rubber-culture generally. It will be remembered that Mr. Clements R. Markham, who was so largely instrumental in introducing rubber-culture into India, in an article contributed some time ago to the *India Rubber World*, mentioned more than once the "official apathy and indifference" shown toward the plantations even after they had been started, he evidently feeling that under more favorable management the Indian rubber experiment would have resulted more satisfactorily.

TEA IN MANCHESTER.—A London correspondent writes to us (*Manchester Guardian*, 2nd May):—"The position of the tea trade is deserving of notice at the present moment. Indian and Ceylon descriptions continue in request, as shown by the returns of duty payments, while the re-exports also continue on a satisfactory scale. The duty payments on Indian for the first ten months of the present season were on 101,076,652 lb., as compared with 94,333,861 lb., during the corresponding period of 1894-5, and on Ceylon tea 63,559,900 lb., as against 58,538,795 lb. As regards the re-exports from June 1st 1895, to March 31st, the total of Indian was 3,221,183 lb. and Ceylon 6,150,797 lb., or an increase of 221,286 lb. and 1,629,978 lb. respectively. Heavy sales have taken place this week and with the absence of supplies and a good demand the lots were cleared off rapidly under keen competition. The better qualities of Ceylon are scarce, and the lower qualities were bought at a further advance of ¼d to ½d per pound above the prices obtained last week; while the rise in Indian teas is ½d to 1d per pound. There is every appearance of values being well maintained."

COCOA AND COFFEE.—For some years past successive Chancellors of the Exchequer have told us that the demand for cocoa is increasing, and that tea is driving coffee out of the market. Yet in face of a growing demand cocoa has cheapened, while the relatively high price of coffee is maintained, nothwithstanding the decreased consumption. How is this to be accounted for? Our Consul at Quayaquil, Ecuador, supplies a partial explanation. Cocoa, he writes, has cheapened materially during the last few years owing to its extensive cultivation, and likewise to the fact that, although the demand has increased, it has not increased proportionately to the supply. The maximum selling price in 1892 was £5 5s per cwt, and the minimum in 1895 was only £2 18s. On the other hand, fair prices have ruled for coffee, and the consequence has been that "new plantations may be said to spring daily into existence." There is a good deal of mystery about the maintenance of the price of coffee in spite of a decreased demand and an increased output. We can only suppose that in the case of this commodity gold has depreciated considerably, and is still depreciating.—*Newcastle Chronicle*, May 8.

THE SILKWORM SUPERSEDED.—We notice that arrangements have been concluded for establishing a factory near Manchester at a cost of £30,000 for the manufacture of artificial silk fibre from wood pulp according to a process invented by Count Hilaire de Chardonnet and which has been in operation for two or three years at Besançon. Already, we read, dress fabrics made of wood silk are being sold in London as French novelties of the season, though their appearance differs from that of old-fashioned silks so little that ladies, it seems, have been buying them, and even shopkeepers selling them, without realising that they are artificial imitations, or that they could trace their lineage to the carpenter's shop instead of to the cocon. The wood pulp is taken in the condition already familiar to the paper-maker. The silk-maker treats his share of the pulp with a mixture of nitric and sulphuric acids. The acids are squeezed out by hydraulic presses, and the condensed pulp cleansed in vats of water. Then it is treated with alcohol and ether. The practical effect is to convert the whole mass into something resembling a thick gum, which is then conducted into cylinders from which it is forced by pneumatic pressure into pipes from the sides of which project a great number of small glass tubes the apertures of which are so fine that a human hair could not be passed through them. These tubes are the Besançon silkworms, and it is from their fine orifices that the gum is pressed out in the shape of delicate filaments which have all the characteristics of silk. Eight to twelve such filaments are spun together to make a silk thread. When this has been produced it is woven like any other silk. Before it goes to the loom it passes through some processes that gives it an extraordinary degree of lustre. It will take dye even more readily than natural silk. "Now," says the *Times*, "that industrial ingenuity has shown that the silkworm can be supplanted by any sort of timber, there is a good prospect of distributing a good deal of this money among our own workers instead of sending it abroad."

Correspondence.

To the Editor.

ADVERTIZING CEYLON TEA IN AMERICA.

Kandy, 16th May 1896.

SIR,—From a large quantity of American advertisements of Ceylon tea which have arrived this week I forward one or two. You will notice that trade customs as well as orthography in Buffalo, N. Y. vary from those of Colombo!!

The advertisements of 'Salada' tea appear in every paper in North America in various forms, and the three large firms originally enlisted by Mr. Mackenzie continue their efforts. As he says, "their work has been the lever which enabled us to bring the American houses in."

Mr. Lipton is also bringing his energy and capital to bear in the U. S. A. Meanwhile, other countries are not being neglected; Mr. Rogivue has been placed in funds, in reply to his application for a special purpose; and a beginning has been made in Norway.—I am, &c.,

A. W. S. SACKVILLE.

(Exact Copy.)

John Ledger, Buffalo N.Y., April 2d, 1896.

B. Fischer & Co.

Dear Sirs,—I have paid C. D. Petrie in full for last shipment. Now on this other 4 chests I have ordered —try and do as well as you can on all of them—of cora the 2 chests of gren tea—*I have coneidrebel trubbl with it on account of sor much fine dust in it.* My customers don't detect it when I mix with black but when they get it clear—that is the time they com for me—I am a cash man and aught to have preferance over long time men—Now some of your New York houses has sent me some verey fine samples of tea—withch proves out better than any I have got from you—and *they garentee to duplicate there samples by the chest*—but I do not want to change with you, if you will do as well—my partner has drawen out from me and I will have to run it on my own account. I am giving a pound of tea with everey ton of coal I sell, 2 pounds on every livory that gos out, if they use the horse well and not brak the buggy they got tho tea and if used hard get out be put if the Police Station and fined this is my sceam and I think it will work well when I get thrugh with the stock I haye on hand—I think it will want considerabel tea—my tea is all high price and I am mixer with yours. Send me good samples this time. Of coars I know nothing about tea but I may know or my pocket may know before I get through—but that will not be you funiral—that will be my look out, do what is right with me—and no more of my partner—tea I will have or he was my partner but is not now.—Yours respectfully,

CAPT. JOHN LEDGER.

THE KOLA IN AFRICA.

London, April 28.

SIR,—I think it will interest some of your readers to know that in certain parts of Africa the Kola grows with considerable luxuriance, but in place of the variety (which yields the bean) which divides into two equal parts, or, in other words, has only one division across the fruit, the variety found growing in this district and especially the Portuguese possessions, divides up into 5 or 6 divisions when the bean is bruised or when it is dried. This variety of Kola yields a sweet powder, and it is not appreciated by the natives in anything like the proportion of the Kola with the "equal divisions." So much is this the case, that the Europeans now settling in Portuguese Africa find that they are obliged to get seed of the true Kola (Sterculia Acuminata) and take it down to their estates. It is their intention to destroy all trees that they can find of the Kola not yielding the true variety. The Kola that breaks up when dried into several sections has been sent to the London market, and after being held in stock as dried Kola Nut for some length of time, has been sold at ruinous prices. This very much militates against the market price of Kola, because people are careless in stating the different sorts of varieties.

By this explanation I want to make it quite clear, that there are also other varieties of Kola which are much worse even than these sweet Kolas, which are known under the name of the "bitter kola" and have been fully described in my No. 8 "New Commercial Plants & Drugs."—Yours truly,

THO. CHRISTY.

SILK IN CEYLON.

DEAR SIR,—With reference to my letter of 13th inst., perhaps the following notes, pending publication of a small pamphlet which I hope to complete shortly, will be of interest to intending cultivators.

The castor-oil silkworm is easily reared, as the worms are of a hardy nature and spin their cocoons within a month. The eggs laid by the moths hatch out in a week or twelve days: the period depends on the temperature in which they are kept. The young worms should be fed at first on the smallest and most succulent leaves of the castor-oil plant, freshly gathered, and on larger and more mature leaves as they grow older. In 3 or 4 days they stop feeding and change their skins for the first time (this is called 'moulting'), and during these periods they should never be disturbed.

The worms as they continue to grow 'moult' 4 times, and after the 4th moult their appetite increases at an astonishing rate, so that the leaves must be given to them very frequently during the day, and enough given them late in the evening for food during the night. At the end of 18 days, or less, they will be ready to spin their cocoons, and should be put into inverted baskets. The cocoons are finished in 3 or 4 days, and the moths emerge within a week and, after pairing, lay their eggs, each female laying from 100 to 200.

The temperature in which my worms are being reared ranges between 80 and 90 degrees: the hotter the climate the more rapidly will the brood be completed.

Lizards, bats, birds, rats and spiders have to be guarded against, and for this reason the worms must be kept indoors, but they should have as much fresh air as possible and be kept clean, the withered leaves and stalks and *excreta* being removed from the tats daily.

This silkworm should be a decided success at any elevation below Nawalapitiya: in fact wherever the castor oil plant grows rapidly: it comes up as a weed in most kurakkan chenas.

I shall be glad to send you fuller details later on: in the meantime any information will be gladly given to intending sericulturists.—Yours faithfully,

B.

P.S.—Early application for cocoons or eggs is necessary, as the moths emerge and eggs hatch so quickly, and the worms cannot easily be sent by post.

PLANTING IN SUMATRA: LIBERIAN COFFEE; RUBBER AS SHADE; CUSCUS.

Soengei Karei Estate, Lobo Pekam, Sumatra,

May 7, 1896.

DEAR SIR,—Some few months ago, a correspondent in your columns recommended a certain rubber tree as shade for Liberian coffee. I have mislaid the paper, and should be obliged if you would tell me the *species* of rubber, and where I could get the seed.

Cuscus Tats.—Can any of your correspondents inform me where I can get these delicious aromatic tats for hanging round a verandah, and the probable cost of a tat say 9ft. by 10ft.?

The planting of Liberian coffee is going briskly ahead here; and during the last few weeks many hundreds of thousands of plants have been put out in this district (Serdang), while our old Ceylon friend Mr. Inch is going big licks in Deli.

There can be no doubt Serdang will hold its own in prices. A few months ago one estate sent a shipment to Singapore, which was so highly thought of, that it fetched one dollar per picul above the day's market rate. Another estate recently shipped to Havre a parcel which created such a *furore* that it was sold at $61 per picul. "Such Liberian coffee had never been seen before," it was said.—Yours faithfully, W. TURING MACKENZIE.

[The rubber referred to by "W. T. M." in his letter of Oct. 25, 1895, as suitable for shade for Liberian coffee, was the Castilloa variety. We believe that cuscus tats can be purchased in Colombo, or they can be procured from India, where they are largely used in the hot season.—Ed. *T.A.*]

COCONUT CULTIVATION.

DEAR SIR,—"Young Planter" is I see exercised by what "they say"—that "grubs, worms and insects" bred in the cattle-manure applied to lagging coconut plants will destroy them. He may make his mind perfectly easy on the subject and go on with his manuring operations, as the only insect known to destroy coconut trees in Ceylon is the red beetle, and it is not bred in manure heaps. As to the age beyond which it is not safe to transplant coconut plants, he will find on page 6 of the book he has quoted, that in Jaffna a plantation was opened with plants 3 years in the nursery. I myself have put out as supplies, plants 3 and 4 years old. The nursery for these was made in a well drained swamp, the plants were taken up with a large ball of earth and placed in coconut leaf baskets to prevent the ball breaking up, and transported to their destination in carts. The advantages of putting out plants of this age as supplies are many and obvious. The veteran planter and authority on coconut cultivation Mr. Wright could say that he put out plants older than 3 and 4 years old and that they grew successfully.

Now as to the method of applying manure. Experience has satisfied me that it is more economical and effective to spread manure round the tree at some distance from the stem and dig it in, than to pack it in a trench cut round the tree. By the one system the manure is mixed up with the soil and becomes available to a large number of root points; by the other, the manure is in a mass and the ground occupied by it in a short while becomes a dense network of rootlets. The system of applying manure in a small area immediately round the stem of a tree is peculiarly native and cannot be too strongly condemned.

Agriculturists must understand that trees take up nutriment by the points of their roots or rather rootlets. By increasing the area in which manure is applied, we increase the root surface and the number of points that feed on the manure. This is of paramount importance in the case of products with a limited lease of life, as it involves the greatest benefit to the greatest number in the shortest time. But it is not of such importance in the case of perennials, as the feeding on the manure wherever applied becomes a matter of time, and the only question involved is one of good or bad husbandry. If you increase the area manured, you increase the area dug up and cultivated and permanently benefited, you increase the number and vigor of the roots, and as a consequence the vigor of the tree, and the last though not the least consideration is that you prevent the rootlets getting matted round the tree, which has such a pernicious after-effect on it. A matter of allied importance is the fineness of the particles of manure.

In my last communication, I dwelt on the importance of salt in coconut cultivation, and was a great deal disappointed that the subject was not pressed on the attention of Government editorially. I have been a consistent advocate of the use of salt in coconut cultivation for a long while, and was the means of its being pressed on the attention of Government directly. On that occasion the Government as a reply inquired what the probable quantity of salt was that was likely to be used in coconut cultivation, before it could decide the question as to its issue for this purpose at wholesale rates. The question was puerile, and the Government must have known as much when putting it. Who could say the probable present consumption of salt for the purpose of experiment, or the probable development of its use once it had passed that stage?

In my agitation for the issue of salt for agricultural purposes I was supported by Mr. Heole of the School of Agriculture, whom I must take this opportunity of congratulating on his success at Bombay in Veterinary Surgery. He supported me with a few modern authorities on its use. I have since come across the authority of Johnson, who says:—"A mixture of salt and lime was recommended as a manure by the German chemist, Glauber, more than two centuries since. The mixture was most fit for dunging trees, and to be used instead of common beasts' dung." It is also described as "the cheapest of all mixtures for the enrichment of poor and barren soil." As here, so in England, "the considerable duties so long imposed on it, naturally prevented any extensive use of this fertilizer." The Essex farmers are said to steep seed-wheat in water mixed with salt and of sufficient gravity to float an egg and then roll the salted seed in lime, both to prevent smut and to increase the vigour of the resulting plants. Mr. Hollingshead wrote in 1800: "Lime prepared for manure should be slacked with salt water, lime so slacked will have a double effect." In 1804, of twenty-five manures used experimentally for potatoes, lime and salt was found superior to nineteen others.

The history of the use of salt as a manure is traced to biblical time. "If the salt has lost its savour, it is neither fit for the land nor fit for the dunghill." An explanation is given of the puzzling expression of salt losing its savour. "There is found in Syria a peculiar kind of fossil or rock-salt, which in progress of time, by exposure to the air, loses almost entirely its taste, except in the very centre of the lumps." "Cato 150 B. C. commends it for cattle, hay, straw, &c., as does Virgil. The early German farmers knew of its value for sheep. In 1570 Conrad Herebashius commends it as a certain prevention of murrain or rot." Salt promotes the decomposition of animal and vegetable matter. 2. It destroys vermin and weeds which are converted into manure. 3. It is a plant food. 4. It is a stimulant. 5. It renders the soil more capable of absorbing the moisture of the atmosphere, of great importance in dry situations or seasons. The result of various experiments with salt in combination with other manure is given and uniformly points to better results.

"Now I come to treat of the mother of all manures, namely, salt. Take six bushels of salt, six bushels of lime and six bushels of dry ashes, mix them together, this is sufficient for an English acre." "Take 32 bushels of lime and slack it with sea water, this quantity is sufficient for an acre of ground, and may be thrown over the land with a shovel or made into compost with forty loads of moss or earth. Its component parts are muriate and sulphate of lime, mineral alkali in an uncombined state, also muriate and carbonate of soda. There is one instance in which it was tried in comparison with 72 cart loads of soaper's waste and dung; and although this was an extraordinary dressing, yet that with the salt and lime manure was fully above the average of the field."

We are advised to make a mixture of 2 of lime and one of salt and cover up the heap with sods for 2 or 3 months. The muriate of lime formed by the decomposition of the mixture is said to be one of the most moisture-loving substances known, and as such, it is said when applied to the land to help vegetation to overcome drought.—Yours &c. B.

THE DIMBULA VALLEY COMPANY'S ESTATES PURCHASES.

High Wycombe, May 8.

DEAR SIR,—I have noticed that the Ceylon papers have expressed somewhat free criticisms upon the "Dimbula Valley" Company's estates purchases, even down to the remarkable action of the Chairman of S. Sylhet Company, in retarding the completion of that Company, to sell Elgin and Belgravia on the terms agreed upon. For the information of the public, I may say that the sale is now completed upon the terms originally determined, and that the "Dimbula Valley" Company is in possession of all the estates contracted for when the Company was brought out. These are all exceptionally good and promising, and I believe the first sale resulted in a 1s average for Lippakelly tea. With good management and care, and with the high average price their produce obtains in the market, they possess a margin between cost of production and sale price, probably higher than any other large Tea Estates Company holding property in Ceylon.

WM. FORBES LAURIE.

THE WILD SILKS OF CEYLON.

Kandy, May 22.

DEAR SIR,—Considering how largely the uses of Tusser silk has extended of recent years, it is to be regretted that nothing has been done to develop the industry in this article in Ceylon. It is probably due in a great measure to the ignorance of the natives generally of the habits of the insects, the Sinhalese in this respect presenting a remarkable contrast to the natives in many parts of India.

There, in some districts the cocoons are regularly gathered from the jungle trees each season: in others the people have partially domesticated the worms, and their method of cultivation is briefly this. As soon as the eggs are hatched, the young worms are placed in little baskets of leaves and carried to such trees as they naturally feed on. The rearers camp at the edge of the jungle, and boys are employed to scare away birds. The rent of a silk 'field' in some districts is R3 for each full-grown man employed, and 3 men, on an average, take up and look after 10 acres. There are 2 broods, or more, in a year, according to the climate: the worms spin in about six weeks after they are hatched.

I am not sufficiently acquainted with the low-country to say whether we have in Ceylon any large tracts of jungle land where the Tusser is to be found in very large quantities: many of our Foresters should be able to afford information on this point. The insect is widely distributed at all elevations below 3,500 feet, but in the more populous districts chena and patena fires destroy large numbers of the worms and cocoons.

In the dyeing of Tusser silk, the varying shades of drab and brown have been found to present serious difficulties. The natives in India collect the cocoons from, or grow them on different species of trees, and by this system silk of uniform colour and quality cannot be produced. I believe it is possible, by feeding the worms on certain trees with which I propose to experiment, to obtain a silk not only of improved texture, but of a lighter colour, a point of special importance, and I shall be very glad to receive cocoons from anyone disposed to assist me in this way. Cocoons should be sent with a small branch of the tree on which they are found, and whenever possible the native name of the tree should be given. The trees on which the cocoons are most commonly met with are the kahata or 'patana oak,' the weralu, cashew, and cinnamon; but they may be found occasionally on many others. Pierced cocoons, from which the moths have emerged, will be of use for comparison, if sent with the leaves. The moth lays its eggs on the under side of the leaf. The worms are bright green, covered with tubercles, and grow to a length of 5 inches or more.

To show what can be done by careful management of silkworms, I am sending you specimens of cocoons of the castor-oil worm bred in Assam and a cocoon of the same species bred here.—Yours truly,

B.

COFFEE IN SUMATRA: A CORRECTION.—BAMBOO DOGCARTS.

O. K. Sumatra, May 23.

SIR,—I was in error in my last when I stated that the $61 p. picul coffee was sold in Havre. I have just been told by the vendor that it was sold privately in Switzerland.

Can any of your correspondents give me the name of the firm or firms in India who make a remarkably light dogcart, with male-bamboo shafts, and a net underneath, suitable to hold "sâman" of any description?

I saw such a one in Singapore some years ago, but cannot find the name of the maker. I should be grateful for information through your column. The cart I allude to is an ideal planter's buggy, and runs light as the wind.

W. TURING MACKENZIE.

TICKS IN CATTLE.

June 13.

DEAR SIR,—*Re* ticks in cattle.—I have always found a double handful of common salt dissolved in a bottle of coconut oil—well rubbed in—to free cattle from ticks. I have not tried phenyle, but feel sure it would answer well, as it does in the case of most kinds of vermin.—Yours truly,

F. W. GRAY.

A COFFEE CLEANING PATENT.—In the *Illustrated Official Journal* there is the following:—24,079. December 11, 1894. COFFEE. Lake, H. H., 45, Southampton Buildings, Middlesex. (Fraser, D. B.; 234, Central Park West, New York.) *Cleaning and sorting grain*, such as coffee, is carried out by feeding the coffee from a hopper on to the top sieve of a series of sieves mounted in a reciprocating frame actuated by cams on the shaft. The sieves are arranged across the frame in inclined planes alternating in the direction of their inclination and having a guide tray under each, so that whatever passes through one sieve is delivered to the top of the next. The shute leads away any refuse which does not pass through the first sieve, and shutes carry off whatever fails to pass through each particular sieve. The sorted coffee beans are received from these shutes, whilst any husks or light bodies are drawn upwards through the channels and deposited in the bins by the action of the exhaust fan. There are shutters for regulating the draught produced by the fan in each channel. The frame carrying the sieves is supported by elastic pieces and also is provided with rubber balls mounted on levers which are caused to strike the sieves whenever the rods strike the stops.

PLANTING AND PRODUCE.

The Royal Horticultural Society and Tea Planting.—The Royal Horticultural Society claims to have played a leading part in the establishment of the tea planting industry in India. In 1842 Mr. Fortune went out on a mission to China, and while there, observed and reported on the growth and cultivation of tea. He subsequently visited India with a view to the introduction of the plant into that country. The East India Company took great interest in the matter, and experiments were made which laid the foundation of the present industry of tea-growing in India and Ceylon. The Royal Horticultural Society was originally due to a suggestion from Mr. John Wedgewood, whose father's name is immortalised by the celebrated Wedgewood ware. In 1809 a royal charter was granted to it by George III., and since that time it has existed as a corporate body. A year later than this it commenced the issue of that series of "Transactions" which has made it famous among the learned and scientific societies of Europe. The cost of their publication exceeded £30,000. It has also established experimental gardens for testing the value of new and possibly valuable plants. At the same time it also commenced that system of the importation of foreign plants which has conferred such inestimable benefits upon this country.

The New Season's China Teas.—The season for China teas "opens," we are told, "more auspiciously" this year "than for some time past." Certainly the tea trade of China, so far as this market is concerned, has been in a very bad way for so long that anything auspicious connected with it will be very welcome to Chinese growers and importers, and will not seriously distress Indian and Ceylon planters. The reason given for the brighter outlook, according to the *Grocer*, is owing mainly to the fact that the first crop of Monings is likely to fall 9,000,000lb short of that of 1895. What is worse for buyers to know is that the quality is said to be "weathered," if not irretrievably spoiled, by excessive rains. And these two circumstances of a heavy deficiency in the supply, together with an inferiority of outturn, are calculated to stir up a better feeling for the article amongst a large section of the trade, though at the moment symptoms of a revival of demand are only faintly visible. But it is early enough yet for the dealers and others to arouse themselves to speedier action in the matter of buying, seeing that shipments from Hankow to this port will not commence directly, and even when they do, it will probably be another month or six weeks before the new black leaf arrives here, as the Ping Suey with the first entire cargo in 1895 did not pass Woosung until after June 2nd, and was not in Thames water until July 9th following. As usual, relatively high prices were paid for the earlier arrivals, but their novelty soon wore off, and not long afterwards importers, as well as the wholesale dealers, burned with large stocks of unsold teas, were seen pressing them on the market unreservedly for sale, at a reduction of several pence per pound from the original prime cost. Thus it is quotations have been brought down to so low a point as they are now.

The Russian Demand.—The low figures asked for these teas appear more strikingly evident, according to the authority we have quoted, when comparison is made with the enhanced prices at present current for the commoner grades of India and Ceylon descriptions, through the diminution of supplies and lack of any certain prospect of the former cheapness returning until the amount of useful tea available is more abundant generally. The truth of this statement, says our contemporary, will soon be discovered by the Russian buyers at Hankow, if they muster there in great force as is their wont on the opening of the new season for China teas. As Ningchows are their favourite kinds when purchasing for their home wants, it is not unlikely that they may have to pay much higher rates for what they require in the ensuing months—perhaps 4d to 6d per lb. above the rates at which similar qualities of old season's teas have been recently obtained in our market. If so, the position of the article will be greatly strengthened in the near future, and some stimulus will be thus imparted to a business which, once flourishing, has for a long while past been seriously on the wane. In 1895 the direct shipments of tea from Hankow to London were equal to only 3,283,440 lb., against 6,876,180lb. in the preceding year, 8,918,960lb. in 1893, and 9,971,840lb. in 1892—showing a rapid and progressive decrease; whilst those to Russia, on the contrary, rose from 15,423,700lb. in 1892 to 20,504,470lb. in the following year, to 22,233,620lb. in 1894, and to the swollen amount of 26,642,730lb. last season. The *Grocer* thinks that it is too much to expect a complete reversal of this movement in China tea, whereby a larger proportion would be diverted to the English market for distribution, but it expresses the hope that the decadence in this important branch of the trade will henceforth be arrested.

A Large Tea Business.—The latest conversion to the joint-stock company form, is the Mazawattee Tea Company, limited (Densham and Sons and the Mazawattee Ceylon Tea Company), which has been formed with a capital of £550,000, divided into 40,000 5 per cent. cumulative preference shares of £5 each, and 350,000 ordinary shares of £1 each, for the purpose of acquiring, carrying on, and developing the business of the Mazawattee Ceylon Tea Company and the business of Densham and Sons, wholesale tea dealers, now carried on by Messrs. Edward Densham, Alfred Densham, Benjamin Densham, and John Lane Densham, who are the vendors to this company. The price to be paid by the company for the businesses, leases plant, fixtures, book debts trade marks, &c., has been fixed at £460,000, with an option to the company of taking certain assets and chattels at £90,000, which option has been exercised, making the total amount to be paid £550,000, which is payable as to £188,331 by the allotment of 13,333 fully paid-up preference shares of £5 each, and 116,666 fully paid-up ordinary shares of £1 each, and the balance in cash. Applications are now invited for 26,667 preference and 233,334 ordinary shares.

Try Turkey.—It was announced last week from Constantinople that the British Ambassador took *tea* with the Sultan. Unless this was a mere conventional phrase, meaning that the Sultan partook of coffee in the afternoon, it indicates that Western customs are finding favour in Constantinople, and that there is a prospect of a new market on the shores of the Bosphorus for the cup that cheers and the leaf that grows in India and Ceylon.

The Consumption of Tea and the Duty Question—In a memorandum just issued explaining in detai some of the figures which the Chancellor of the Exchequer used in his recent Budget speech there are some interesting figures about tea. In the year 1885-6, the produce of tea duty, at 6d per pound, was £4,187,000. In 1890-1 the duty was reduced to 4d per pound, with an estimated loss to revenue of £1,072,000. If, therefore, in 1895-6 the consumption of tea had been the same as it was ten years before the revenue the duty would have been £3,115,000. The actual produce was £3,745,000, and the difference between the two sums is taken as representing the elasticity of duty in the decennial period. It appears from another table that, prior to the reduction of the duty, the consumption of tea per head of population had increased. In 1875-6, with the duty at 6d per pound, the consumption per head of population had been 4·51 lb. In 1885-6, with the same duty, it had risen to 4·65 lb. In 1895-6, with duty reduced to 4d, it rose to 5·74 per head. We are not, however, to assume that it has been the reduction of duty alone that has served to stimulate consumption. More considerable, and probably more effective, has been the reduction in the import price of tea. In 1875-6 the import price was 16·73d per pound, in 1885-6 it was 12·14d, and in 1895-6 it had come down further to 9·65d. So, too, with sugar. The consumption per head of population has increased from 60·78lb in 1875-6 to 89·16lb in 1895-6, while the import price per pound has gone down from 2·37d to 1·24d.

TOBACCO AND THE DUTY.—In the memorandum referred to the returhs on tobacco show more clearly the effect of an increase or decrease in duty. In 1875-6 the duty on tobacco was 3s 1 4-5d per pound, the revenue from it was £7,745,000, and the consumption per head of population 1·471b. In 1885-6 the duty was 3s 6d per pound, the revenue from it was £9,299,000, but the consumption per head had fallen to 1·44 lb. In 1895-6 the duty was 3s 2d per pound the revenue from it at this lower rate was £10,748,000, and the consumption per head 1·69 lb.

COFFEE PLANTING IN MEXICO.—Mexico bids fair to occupy a prominent position as a coffee-producing country. The fall in silver and the reduction in the price of labour and of land have furnished conditions favourable to the development of the new industry. A useful report on the coffee plantations of Mexico has been prepared by Mr. Francis Stronge, Secretary of the British Legation and issued by the Foreign Office. Mr. Stronge tells us that 250 acres of suitable land can be had for £300, and that whilst the cost of cultivating the plantation during the first five years is £30 per acre, the yield amounts to £59 per acre. The coffee plant reaches its full power of production in its fifth year, and in the sixth and subsequent years the expenses of working amount to £11 17s per acre, and the receipts to £27 6s. The advice given to intending settlers is that in purchasing and estate they should negotiate with a trustworthy foreign agency, and that they should spend some time in the country before making the purchase, with the view of acquiring some knowledge of the coffee-planting business. A capital of £1,500 is said to be amply sufficient for the requirements of any ordinary planter.

THE BAHAMA SISAL INDUSTRY.—Dr. Morris, assistant director of the Royal Gardens, Kew, has prepared for the Colonial Office an interesting report on the sisal industry in the Bahamas, which has assumed such large proportions of late. The actual area planted in the islands is about 25,000 acres, and it is estimated that the yield will shortly reach about six thousand tons. Last month good fair sisal sold in London for £17 10s per ton. Dr. Morris estimates that even if the lowest price ever obtained—viz., £13 per ton—be accepted, the margin for profit will amount to £4 10s per acre, the yield of which varies from one-half to three-quarters of a ton.—*H and C. Mail*, May 22.

SIZE OF THE BREAKS OF CEYLON TEA.

There is some talk in the market of raising the limit for public sale sampling to the same figures as prevails in Indian tea—nearly, 20 chests, 30 half-chests and 50 boxes. Buyers have felt the strain severely of late in having to taste so many samples, and they complain also of the extra expense of sampling and sending out a number of small breaks instead of one large one. It is to be hoped that the Ceylon tea planters will fall into line with their Indian confrères as soon as possible. Justice cannot be done to so many samples in the busy season, and the seller invariably suffers if the buyer has not been able to satisfy himself thoroughly as to the top value of what he is bidding for. Something might be done to meet the legitimate wishes of buyers if planters were to curtail the number of grades into which they sorted their produce. The tendency of the tea trade being so much in the direction of large blending businesses, there is not now the necessity for more than three sorts, and planters would save themselves expense and trouble, and in the long run get as good a return if they were to endeavour to work in the direction now indicated. —*H & C Mail*, May 22.

THE DIMBULA VALLEY TEA COMPANY.

It may be said that all is well that ends well, and the dispute between the Directors of this Company and Sir John Muir having been closed, it is not needful to go into it at any length. But some very curious information has transpired as to the difference in the law of England and Ceylon and also of England and Scotland bearing on the sale of estate (Belgravia and Elgin) property in this case. When Sir John Muir disputed the sale and the Directors had to take the best available legal advice, it turned out that the Agreement undoubtedly entered into with the Sylhet Company at home was,—

(1) Not binding in law in Ceylon.

(2) Was binding in England, but the estates being in Ceylon no action could be raised in an English Court; or if damages were claimed as they might be up to £25,000, and obtained, no specific recovery could take place against any one here! and

(3) The Agreement with homologation (that is the subsequent proceedings of making part payment of price and sending out Power of Attorney to transfer) was binding under the law of Scotland.

This last fact no doubt influenced Sir John Muir in withdrawing opposition to the transfer of the Sylhet Company estates; but surely the anomalous condition of affairs revealed by the above in reference to the law affecting Agreements for Sale of Landed Property within the same Empire should lead to some reform. At any rate, our Government must see to it that a legal Agreement entered into and duly stamped in London—the centre of capital, trade, and business generally,—should be made valid in Ceylon. For, undoubtedly, had there been a continuance of the dispute, and a law suit had resulted in the Dimbula Valley case, a great shock would have been given to the reputation if not credit of Ceylon, in metropolitan business circles. We trust, therefore, to see some amendment of the present system shortly carried.

THE CITRONELLA-OIL DISPUTE.

We understand that Messrs. Domeier & Co. have been approached this week by Mr. W. W. Green (Brookes and Green), who was one of the arbitrators in the Citronella-oil case, on the subject of the dispute between themselves and Mr. R. C. Treatt Mr. Green, on behalf of Mr. Treatt, suggested settlement of the questions at issue, and Messrs. Domeier & Co. have agreed to close the matter upon Mr. Treatt paying the entire costs of the arbitration and analyses and the legal expenses, taking back the adulterated citronella oil, and replacing it by guaranteed pure oil. These conditions having been agreed to, no further law proceedings will be taken.—*Chemist and Druggist*, May 23.

VARIOUS PLANTING NOTES.

THE PRODUCTION OF COFFEE AND TEA IN BRITISH DEPENDENCIES.—The *Home & Colonial Mail* in noticing the communication which we reproduced on Saturday says:—Mr. J. Ferguson of Ceylon, who is always eager to keep our statesmen and the public generally well informed as to the facts in connection with the planting industries of British dependencies, writes a letter to the *Times* to correct some current misapprehension about Ceylon coffee production and price.

MAURITIUS TEA.—We have received some samples of Mauritius tea, which we submitted to an expert, who informs us that the curing is not quite satisfactory, but that, allowing for the improvement which it is perfectly possible to make in that direction, there would seem to be no doubt that a regular market for this production could be found in London, the quality of the leaf, strength, and aroma being good, the principal defect being in firing. To suit English taste these teas would have to be blended with other teas; but we understand they are at present mostly consumed in the island itself in the form in which we saw and tested them.—*The Sugar Cane.*

NOTES FROM METROPOLIS.

HERTFORD, May 22.

MR. WM. MACKENZIE

is not idle about our tea in America, though on this side at present. He has frequent interviews with houses on this side who are exporting tea to the States and is only now waiting for the co-operation of India, and perhaps to meet Mr. Blechynden in London, before starting again for New York. A remittance of £3,000 from Ceylon has come to hand. Here is a specimen of the latest advertisement inserted by our Commissioner in the American Press:—

INDIAN AND CEYLON TEAS.

The Chancellor of the Exchequer, in presenting the Budget to the British House of Commons on Thursday, said:

"A great feature had been in the increase of the revenue from tobacco, wine and tea, the latter having steadily driven coffee out of the market, * * * and the popular taste for rum was greatly lessening. Tea had yielded £120,000 over the estimate, implying an increased consumption of 10,000,000 pounds of that commodity. There was a large and welcome transfer of the tea trade from China to INDIA and CEYLON."

The increase in the consumption of these teas in America during 1895 was at even a greater ratio, being equivalent to an advance of 72 per cent over that of 1894,

	lb.
Imports in 1894	5,379,542
Imports in 1895	9,283,144

The three estates purchased (or to be purchased by the

CONSOLIDATED ESTATES COMPANY

of Ceylon from Messrs. Arbuthnot & Co, are Knutsford, £5,000; Rutland, £15,600; and Warriagalla, £14,400—total £35,000; and fresh debentures and shares are to be issued to cover the amount.—Another extract from yesterday's *Pall Mall*, of tea interest, runs:—

MAZAWATTEE TEA COMPANY: FULL DETAILS OF THE COMING USE.

We are able to state that the capital of the Mazawattee Tea Company which is on the point of being offered to the public, will be £550,000 in 40,000 five per cent cumulative preference shares of five pounds each and 350,000 ordinary shares of one pound each. The prospectus will state that in addition to the tea trade the vendors also carry on a large business as wholesale coffee dealers, that they supply some of their customers with printed matter from their own printing plant, and that it is believed that, besides meeting their own requirements, they will be able to carry on an export and general trade in tea-packing lead. The new company takes over the stock-in-trade valued at £71,418, cash at bankers, bills receivable and book debts, less liabilities, at £71,771, and leases, plant, fixtures and effects at £24,322. The total purchase price for the whole business will be £550,000, of which one-third will be taken in preference and ordinary shares, to be retained for at least twelve months, and not to be sold for five years without the consent of the directors. A statement of profits certified by Messrs. Whinney, Smith, and Whinney will appear in the prospectus, showing that they amounted to £41,050 in 1893, £44,229 in 1894, and £52,118 in 1895. The business is being converted for family reasons, and in order to enable customers, the trade, and the staff to obtain a direct interest.

GREEN *VS.* BLACK TEAS IN AMERICA.

Until Mr. Mackenzie's letter is available for reference, we cannot know the degree at which he estimates the difficulties that the preference shown for green teas in America offer to his full success on our behalf. From what our London Correspondent has been able to learn as to this, however, it seems natural to conclude that he does not regard these lightly. Whether he has been able to offer any practical suggestion for overcoming them we are at present unaware. We conclude from the fact that the Tea Committee of our London Association had determined to print his letter for circulation among its members, that that body deems Mr. Mackenzie's communication on the subject to be of an important character. In the meantime our readers may well be reminded that this is by no means the first occasion on which this cause of hindrance has been brought under notice. Some three or four years back the matter was so strongly represented, that some of our estate proprietors prepared a considerable quantity of green tea and sent it home. This first shipment met with such a ready sale, that the preparation of this tea was undertaken by others in the colony. It was soon made evident, however, that this further supply was in excess of demand, the shipments made remaining for a long time unsold. But no sooner had the stock become slowly exhausted than fresh demands were made for it for America, which, of course, the London trade was not then in a position to supply. We discussed the situation at the time, coming to the conclusion that the demand for green tea was too fluctuating and uncertain for it to be worth the while of our planters to undertake its manufacture after any regular fashion or to any considerable amount. The late Mr. James Whittall, as our London Correspondent has reminded us, was very strong in his views as to our attacking the American market with this description of tea, and he had a large quantity prepared upon his own estates. But we have never heard that the result his doing so inclined him to persevere in that course. We shall be curious to hear if Mr. Mackenzie recommends that it should be continued by our planters. Two alternatives, it would seem, must then be before us. Either we must await such a change in taste as has now come about in England, or we must endeavour to meet that yet prevalent among the people of the United States. As to these alternatives Mr. Mackenzie will no doubt advise us wisely. The local experience he has now obtained in America must render him the fittest person to decide our future course for us.

THE EADELLA ESTATES CO., LD.

The following is a fuller report of the ordinary general meeting of shareholders in the Eadella Estates Co., Ld., held at Kandy on Saturday, June 13, than we were able to give in our issue of that day:—

Present:—Messrs. W. D. Gibbon in the chair, F. M. Laurie, E. S. Fox, H. S. Rix, Gordon Pyper, Edward Kynaston, and there were also represented Messrs Wm. Forbes Laurie and Buxton Laurie.

After the usual formalities the Directors' Report for the past season was presented.

The CHAIRMAN said that he thought the report, which the Directors now submitted to the shareholders, was pretty well exhaustive, and that they had entered fully into all that had been done; and though they had met them with a proposal for a slightly less dividend than that of last year, he would like them to consider that this Company's season ending in April put the results on a different footing to those companies which had closed their season on 31st December last, as we had to include some 4 months of poor prices and high exchange. The teas had netted about 8 cents less than in the previous years. He

would certainly like to see them getting higher prices, but still they should not lose sight of the circumstances he had mentioned. The Company was in a good position. The preliminary expenditure had been written off in 3 instead of 5 years as originally contemplated, and they had also carried forward a good sum. He desired specially to accentuate the fact of the new clearings being so good, and the shareholders ought to bear in mind that they have now an additional area of 102 acres of Liberian coffee and cacao, planted also with coconuts, and that not in the used-up soil of a resuscitated coffee estate, but as their visiting agent could affirm some of the very finest soil in the district.

Mr. FOX said that the clearings of cacao and Liberian were most satisfactory, and the soil exceptionally fine and all that could be desired. He mentioned the fine coconut plants also. Alluding to the very fine crops of Liberian coffee that were originally yielded from the older and much poorer soil in the portions of "Liberia" that adjoin the railway line, he remarked that much more could be expected from the new fields of rich soil than was got from the older and poor land which cannot be compared for a moment to the clearings, though they had yielded handsomely in former years as regards quantity, when unfortunately the real value of Liberian had not been recognised and prices were very low compared to present values.

Mr. GORDON PYPER asked regarding the shade on the new clearings, and whether it was detrimental to Liberian coffee, and an interesting discussion arose as to the methods of topping Liberian, and general working and labour and the season of tea pruning; and after suggesting, that consideration should be given to the opening of 30 or 40 acres more land next year, Mr. Pyper proposed the adoption of the Directors' report and accounts, and, seconded by Mr. H. S. RIX, it was carried.

DIVIDEND.—It was moved that 6 per cent be now paid making the complement of 11 per cent for the year.

DIRECTORS.—Messrs. Fox and F. M. Laurie were proposed to be re-elected by Mr. PYPER, econded by Mr. RIX.

AUDITOR.—Mr. John Guthrie's re-election was moved from the CHAIR and carried.

SUPERINTENDENT.—Mr. E. S. FOX considered that Mr. Kynaston's efforts and management of estates merited the thanks of the shareholders; and this being seconded by Mr. LAURIE, the resolution conveying the same was carried.

With a vote of thanks to the chair the meeting erminated.

ANOTHER NEW TEA COMPANY.

THE PENRHOS ESTATE COMPANY, LIMITED.

The last new tea estate company is the Penrhos Estate Company, which is to be formed to purchase the Penrhos and Hentleys and Dehanaike estates in Ambagamuwa. Penrhos and Hentleys belong to Mr. W. B. Kingsbury, and the whole group is to be formed into one Company. The purchase amount is said to be about £11,000, and Messrs. Lee, Hedges & Co. are the agents. A contemporary is told that the capital is already subscribed more than twice over.

MADRAS CINCHONA PLANTATIONS.

The *Fort St. George Gazette* recently contained an announcement of the appointment of Mr. W. M. Standen as Director of the Government Cinchona Plantations in Madras, and that of Mr. D. Hooper as Government Botanist, subject to the approval of the Secretary of State. The Government of India has, on the recommendation of the Government of Madras, sanctioned Mr. Standen's appointment on a salary of R450, rising to R750 with free quarters. Mr. Standen, as a cinchona planter of experience, is considered the best person to conduct the working of the plantation and its produce. He will be given one year's time to qualify in the processes involving the manufacture of cinchona products, when he will be placed in charge of the quinine factory.—*Pioneer*, June 10.

INDIAN INSECTS OF ECONOMIC IMPORTANCE.

Number 6. Vol. III. of the Indian Museum *Notes* contains a very large number of figures prepared from time to time in the Entomological Section of the Indian Museum in illustration of insects of economic importance in India. Most of the species concerned have already been more or less completely discussed in the pages of previous issues of these interesting pamphlets, and in publishing these figures the Trustees do so merely with a view to facilitate their identification, and they have thereby rendered the public a great service. The illustrations are very well executed by native artists, to whom due acknowledgment is given for their services, while the writer of the *Notes* does not forget to express his thanks for the great assistance rendered by Colonel J. Waterhouse and Messrs. Dean and Ross. Among the illustrations which have the greatest interest for those in this Presidency we find one of the Buprestid *Psiloptera fastuosa*, referred to in previous *Notes* in connection with injury to teak trees. It resembles the jumping beetles, that description which if placed on their backs will recover their proper position by a series of jumps, sometimes leaping two or three inches into the air. The Hesperid *Gangara thyrsis* is notable as a defoliator of young coconut palms in Malabar. The caterpillar of these species *Alope ricini*, a sort of woolly bear, occurs throughout India, and is a general defoliator. Another illustration shows that *Acridium aeruginosum*, referred to in various places in the *Notes* in connection with so-called "locust invasions" in this Presidency, taken from specimens received from Madras. We are told that considerable individual variation is exhibited in the arrangement of the wing markings, even in specimens forwarded together from the same locality. In the absence of colouring, we are unable to say whether these are the same species of locusts that invaded the Island several years ago, but they look rather like them. The ones we refer to, attacked the croton bushes at the further end of the Island, near the Buckingham canal, and were notable for their beautiful colouring, in which a bright blue was conspicuous. But we find an illustration of another locust, the palaearctic, which may be the one we refer to. Specimens of the latter were sent to the Indian Museum in connection both with the Madras locust invasion of 1878 and also with more localised injury to standing crops in Gan-jam in 1890. The variety appears to be a far lessserious enemy to standing crops in India than such species as *Acridium peregrinum* and *Acridium succinctum*. Of coffee pests there are several illustrations, including one of an ant, which also attacks cinchona bushes, in Ceylon, and is known as *Cremastogaster dohrni*, a very long name for a very little insect; the imago of the cosmopolitan species *Agrotes segetum*, which attacks young coffee plants; the scale insect, *Lecanium viride*, with a plate illustrating its life history. Among other interesting figures is that of an Asilid fly which mimics the bee *Trigona ridua* so closely in size and colouration as to be almost indistinguishable when upon the wing, in spite of its great structural diversity. The Asilid figured was taken in the act of devouring the bee. The last illustration which we can refer to, shows the remains of a beam of wood, from the neighbourhood of

Calcutta, which had been attacked by white ants. The snpports left by the ants to bear the weight of the earth and rnbbish that lay above the beam, consist mostly of a knob in the centre strengthened by a little of the snrronnding wood-tissue, exhibiting the wonderful wisdom of the termite in his depredations. —*M. Mail*, June 3.

DRUG REPORT.

(From the *Chemist and Druggist.*)

London, May 21.

CAFFEINE.—Unaltered in price, at from 18s to 19 per lb., according to quality. There has been a good deal of dissatisfaction lately among wholesale druggists and shippe s at the practice of caffeine-manufacturers to book one-cwt. orders at the minimum price and to allow the quantity to be taken out as required. This practice is said to be spoiling the wholesale trade, and it has been arranged to make a combined representation to the manufacturers asking them not to sell below the list prices and to insist upon the entire contract being taken up at once.

ESSENTIA OILS.—It is expected that the quotations for Crotton oil will shortly be further advanced, on account of the extreme scarcity of croton-seed. Clove oil remains quite neglected; the demand has fallen off considerably lately.

VANILLA is extremely firmly held, and according to the importers, there is every prospect that prices may still advance by several shillings for fine qualities.

SPICES.—White pepper is very flat with sales at auction of middling. Penang at 3d, brown Ceylon at 3½d, and fine ditto at 4½d per lb. For June-August delivery 3⅜d per lb. has been paid privately.

MR. E. M. HAY'S VISIT TO AUSTRALIA.

A FLOWER AND FRUIT EXPERIMENT IN CEYLON.

Mr. E. M. Hay of Goorook-oya, we are glad to learn, has returned from a visit to New Zealand greatly benefited in health from his visit to the Britain of the south. Auckland, Mr. Hay confided to an *Observer* representative, was his headquarters, and at the famous Rotorwa Springs, a district, the climate of which has for him many charms, he has laid in a store of health and strength. In Australia, he doubtless, would have had an enjoyable time but for an attack of fever. All the same, Mr. Hay has not been idle in the course of his travels, and as a result he is about to make an experiment in orange and lemon culture, a subject with which he is *au fait* and an enthusiast to boot. In the steamer "Orient," by which he came from Australia, Mr. Hay has brought several cases of orange and lemon grafts. Despite the long sea voyage, the grafts are in excellent heart and appear full of vitality. The orange and lemon plants with which he is to experiment, grown at Sydney, originally came from Florida, and they are the results of high and very careful cultivation. The orange contains a very limited number of seeds, has a very thin skin, and is of exquisite flavour. The lemons are of the very finest grown in Florida. Mr. Hay intends to send some of the grafts to the Royal Botanic Gardens at Peradeniya and with the others he is to experiment on his estate of Denmark, Ulapane. The elevation of the estate is about 1,700 feet, and it is well suited for the cultivation of oranges, though he does not think that lemons will grow so well on it. Mr. Hay proposes to graft the oranges on to pumelo trees of which there are a good many on the place, and he may, by way of experiment, probably send some of them to an estate in Uva, the premier fruit district of Ceylon. The method of planting, Mr. Hay explained, was pretty much like that employed with coffee. Holes were cut and the plant set up in good, soil. In Australia, he remarked incidentally they did not take very much trouble in the matter of planting though they were very particular with regard to securing efficient draining. A most important thing he said in orange growing was to see that the land was thoroughly drained. There was nothing more impatient of wet feet or stagnant water than the orange. Mr. Hay has also imported a quantity of prize chrysanthemums. While at Auckland he was very much struck with the appearance of the crysanthemums. Some of them were of the most exquisite colours, and in several instances a single bloom measured quite 8 inches across. The prices asked for such were very stiff, but he succeeded in getting cuttings as well as a few choice dahlia blooms. Mr. Hay considers that the chrysanthemum, if properly looked after, would do very well in Ceylon, and if they do not thrive in Ulapane or Nawalapitiya, he purposes sending them to Nuwara Eliya. Reverting to the subject of New Zealand, Mr. Hay expresses unqualified admiration for the timber of that country—twenty or thirty of the woods being most beautiful.

THE CITRONELLA OIL DISPUTE.

As some of the parties connected with this (now happily settled) dispute have endeavoured to throw doubt upon the correctness of our announcement of last week relating to the terms upon which the incident was closed, we may state that Messrs. Domeier & Co. confirm the accuracy of our statement in every respect, and that they have shown us the memorandum, dated May 20, and signed "Wm. W. Green," in which Mr. Green confirms the terms of settlement verbally agreed upon between himself, on behalf of Mr. Treatt, and Mr. Domeier, earlier on the same day. This document states that Mr. Treatt agrees to give to Messrs. Domeir & Co. "approved commercial citronella oil of direct import from Ceylon" against two of the contracts in dispute, while, with regard to the third, Mr. Treatt agrees to refund the money and take back the oil. Mr. R. C. Treatt further undertakes to pay the arbitrators' fees and the analysts' fees, and it is agreed between the parties that "no other questions are to be raised."

But, although the Domeier-Treatt case has thus been settled, we understand that more is likely to be heard with regard to yet another parcel of citronella oil, purchased from Mr. Treatt by the London representatives of one of the largest German essential-oil firms.—*Chemist and Druggist*, May 30.

"CAMPHOR-SEEDS."

At today's auctions 5 1-cwt. bags described as "seeds," imported from Rangoon, were offered for sale. In appearance the drug very much resembled decorticated cardamoms, but it was distinguished from the seed of *Elettaria cardamomum* by its strong camphoraceous odour and taste. The older druggists recognised the article (which has not been seen on the open market for many years) as "camphor-seed" at one time a regular article of trade. The seeds are those of *Amomum cardamomum*, Willd., the "round cardamom" formerly not unfamiliar on our market, and are closely allied to the official cardamom in medicinal properties. In the south of Europe, in fact, we believe that they are (or were when available in trade) often used as a substitute for the true cardamom. The habitat of the parent plant is Sumatra, Java, and the other Malaysian islands, which accounts for the importation of the parcel via Rangoon instead of from Ceylon or Southern India. The fruit has sometimes been imported in the cluster form in which it grows, and which has earned for it the French name of "*Amome en grappes*."—*Chemist and Druggist*, May 30.

INDIAN TEA ASSOCIATION.

GENERAL COMMITTEE'S REPORT.

The following are extracts from the Report of the General Committee of the Indian Tea Association for the year ending 29th February 1896:—

INDIAN TEA IN AMERICA.

Mr. Blechynden has continued to carry on his campaign in the United States, in the interests of Indian tea, with unabated vigour during the year, and has been working lately in conjunction with Mr. Mackenzie, the Commissioner from Ceylon. Mr. Blechynden has displayed great versatility and resource in the schemes he has adopted for bringing Indian tea before the American public, and at a meeting of the General Committee of the Association in London, held on the 17th of March last, a resolution was passed, expressing their appreciation of the valuable services he had rendered to the tea industry. Reference was made at considerable length in the last report to the details of his plan of operations, which consisted mainly in giving demonstrations in both large and small stores in New York, Brooklyn, and Chicago, assisted by his staff of five Native servants who proved a considerable source of attraction. During the past year he has however, been working on somewhat different lines, and has dispensed with the services of the Natives, who appeared to be no longer required, after a certain, stage in his operations had been reached, although they were extremely useful in drawing attention to his enterprise in the first instance. Mr. Blechynden has furnished from time to time interesting reports of his proceedings, which have been communicated to the newspapers for the information of all those interested in the extension of the Indian tea trade. He is now engaged in calling the attention of the American public, in conjunction with Mr. Mackenzie, to Indian and Ceylon teas by means of advertisements, paragraphs in newspapers, lectures, demonstrations, and by supplying tea as a beverage in places of public resort. He has also—and this is, perhaps, one of the most important branches of the work at present—arranged to co-operate with private firms and others engaged in selling British-grown teas, by granting them subsidies for advertisement on such firms undertaking to spend an equal amount in advertising Indian and Ceylon teas. The London Committee have found by experience that they have been able to obtain a much larger field for advertising and making known the good qualities of Indian tea by working in conjunction with Ceylon, and have good reason to hope that the vigorous efforts, which have been made by the representatives of both countries, are now beginning to bear fruit.

Statistics recently published by Messrs. Gow, Wilson and Stanton show very clearly the result of the efforts which have been made to obtain a footing in the markets of America. There has been a steady increase in the consumption of British grown tea in the United States and Canada during the last six years, and the advance in consumption which has taken place in 1895, the figures for which are 9,283,144 lb. as compared with 5,379,542 lb. for 1894 furnishes, in the opinion of the Committee, striking evidence of the success of the vigorous exertions made by both the Indian and Ceylon Associations to push the trade, and should act as a powerful incentive to still greater efforts, when it is remembered that the American markets annually consume over 100,000,000 lb. of tea.

In their last annual report the General Committee recorded their opinion that a slow but steady increase in the imports of Indian tea into America was taking place, and the figures which are referred to above show that their forecast was fully justified.

The American and Foreign Tea Committee of the Indian tea Association, London, who have the control and direction of Mr. Blechynden's work in the United States, recently published an interim report, in which they expressed the opinion, that having regard to the very large extensions which are coming into bearing both in India and Ceylon, it would be a grave error to leave at present entirely unaided the extension of consumption in the United States, and stated that it was essential that there should be a levy for the season 1896 on the same basis as in the last year. On the above report being presented to the General Committee in London, on the 17th March last, a resolution was unanimously passed in favour of making an effort to carry on for at least another year the work of pushing Indian tea in America, and a further levy on the same terms as in 1895 was decided upon for this purpose. The General Committee here are fully in accord with the views of the London Committee on this matter, and they have accordingly issued an appeal for support not only on the grounds of the success achieved in exploiting the American markets, but also in view of the vital necessity which exists for finding new outlets for the annually increasing crops of Indian tea. The estimate of the Indian tea crop for 1896 amounts to over 144 million lb., or nearly 9 million lb. over the actual outturn of the crop of 1895, and this, of itself is a proof of the necessity for opening up new markets wherever possible. In response to the Committee's Circular of 20th July, 1895, the sum of R92,545 was contributed. This represented a production of nearly 80 million lb. of tea, and included liberal contribution from the two Planters' Associations in Travancore, which have all along taken great interest in the American campaign. The General Committee trust that in view of the increasing necessity for finding outlets for tea, a much larger sum will be raised during the present year. If the ratio of increase of consumption of British-grown tea in America can be maintained for a year or two more, the trade will probably be in a position to take care of itself, without the aid of special efforts, such as the present, and the Association will then be able to turn their attention to the opening up of new markets in Russia, South Africa, and other parts of the world.

MITIGATION AND PREVENTION OF INSECT BLIGHTS.

This important matter formed the subject of a somewhat lengthy paragraph in the last report closing with a reference to the deputation of Dr. Geo. Watt, C.I.E., Reporter on Economic Products to the Government of India, to Assam, to make special enquiries as to the value of the *Adhatoda Vasica* plant as an insecticide, and also to prosecute any further investigations on points lying within his sphere of work, which might be suggested to him, and might be of service to the tea industry. Dr. Watt remained in Assam some three months, the time allotted to him by Government, and his report, which is shortly expected, will no doubt, prove of the greatest interest to all connected with tea, although it is to be regretted that he was not able to devote more time to his investigations while in Assam, and the Government have not since seen their way to allow him to return.

EXEMPTION OF TEA MACHINERY FROM DUTY.

In consequence of representations received from members of the Association, the General Committee addressed the Committee of the Bengal Chambers of Commerce on the 26th March 1895, with papers in support of a representation the Committee of the Chamber were making to Government in favour of exempting all machinery used in connection with the manufacture of tea from duty, and were subsequently favoured with a copy of the letter addressed to the Board of Revenue by the Secretary of the Chamber on the subject. The result of the Chamber's action was, that orders were issued by the Government of India, exempting all tea machinery from duty, and the General Committee tendered their best thanks to the Committee of the Chamber for the part they had taken in bringing about this desirable result.

MANUFACTURE OF THEINE FROM REFUSE INDIAN TEA LEAVES.

The Committee have had some interesting official papers placed at their disposal by the Government of India, containing correspondence between Messrs, Thomas Christy & Co., London, and Her Majesty's Board of Customs on this subject, and they are

printed in the Appendix for general information. Messrs. Thomas Christy & Co., will no doubt have conferred a great benefit on the tea industry and also on the general public, if they had solved the problem of converting refuse tea into a useful and beneficial drug. In October last the Committee received from Messrs. Thomas Christy & Co., through the Indian Tea Association, London, a couple of sample boxes of Theine tablets especially recommended in cases of fatigue and headache which it was thought, would meet with a large demand among the natives of India. The quantity sent was too small to experiment upon, but it is understood that Messrs. Christy & Co. are taking steps to have these tablets widely disseminated among tea estates in different parts of India.

INDIAN TEA IN PERSIA.

In September last the attention of the General Committee was drawn to an article in the "Home and Colonial Mail" of 16th August on the subject of tea in Persia, commenting on the report for 1894-95 on the trade of Khorassan by H. B. M. Vice-Consul Mr. Ringler Thomson. The Consul stated in his report that there was no doubt a very large quantity of cheap bad tea come from the Indian markets, and that brought to Meshed was of the vilest description, and probably damaged stuff; which had been subjected to firing a second time. The Committee were of opinion that this was a statement which should not remain unchallenged, and required careful investigation in the interests of the Indian tea trade, and they accordingly addressed the Vice-Consul at Meshed, asking by what route the tea arrived in the country, and how it was packed, and a request was also made for samples if they could be supplied, in order to enable the Committee to trace its origin. Mr. Thomson replied on the 2nd of October, forwarding four samples of tea with his letter in support of his previous official statement. Three of these on being valued were found to be absolutely worthless, the value of the fourth being estimated at not more than 7 annas per lb., although selling in Persia at Re. 1-40, this being the only one of the four samples sent, which was fit for consumption. The Committee have been using their best efforts to discover where and by whom this worthless tea is shipped to Persia. It is quite clear it does not come from Calcutta, and they have received a letter from a leading firm of brokers here stating that although a very considerable quantity of sound high-class tea had been shipped from this market to Persia, for some seasons past, they desired to place on record their statement as brokers for the largest buyers for the Persian market, that so far as they knew, no unsound tea had ever been shipped from this port. A reference in the letter from the British Vice-Consul at Meshed to Kangra led the Committee to place themselves in communication with the Kangra Valley Planters' Association, who supplied them with some interesting information as to the mode of manufacture and adulteration resorted to by Native planters in that district, and it appeared likely that this tea was sent to Bombay for shipment to Persia together with inferior and adulterated tea from other districts with possibly a good admixture of low-class China tea. The Committee have since been in correspondence with the Secretary of the Chamber of Commerce, Bombay, who has very kindly done all in his power to assist in the investigation; but so far as the enquiries have gone, has not been able to find any trace of shipment of such tea having been made from Bombay, though he is hoping to collect further information. The matter, although an extremely important one to the tea industry, in view of Persia becoming an important outlet for Indian tea, is admittedly a very difficult one to deal with. The exports of Indian tea from Bombay to ports in the Persian Gulf amount now to about 2,000,000 lb. annually.

THEFTS OF TEA IN TRANSIT.

In October last attention began to be directed to the serious loss caused by the frequent shortages found on opening tea chests in London, evidently the result of the chests being tampered with and pilfered somewhere in the course of transit. The General Committee immediately took action in the matter by asking for the co-operation of members in trying to localize the thefts and bring the offenders to justice. They also issued a circular letter to different firms of brokers, enquiring whether they had discovered any shortages of tea sold by auction in Calcutta, and asked what precautions they took against thefts being committed when tea was in their godowns. The Tea Traders' Association were also addressed with a request for any help they could give in investigating the matter. The general opinion was that the chests were tampered with somewhere in the port before shipment. The Committee then placed themselves in communication with Sir John Lambert, the Commissioner of Police, who immediately took active measures to discover and suppress the thefts if they were being committed within the limits of the port. As a result of the energy and vigilance of Mr. Superintendent Hogg, an important arrest of the manjees and dandees of two cargo boats was made on the 17th of December, the issue of which was that seven boatmen were sentenced to six months' imprisonment and one receiver to one year's imprisonment. Superintendent Hogg and his staff followed up this successfull beginning very vigorously, and between the 17th of December and the 15th of January, twenty-three persons were arrested by the River Police in connection with nine cases of theft, of whom eighteen were convicted. The Committee showed their appreciation of the good work done by the police by placing at the disposal of the Commissioners the sum of R500 for distribution as rewards. Sir John Lambert has called special attention to the temptations to dishonest boatmen owing to absence of proper safeguards on the part of shippers while their tea is lying in lighters on the river, and he has suggested that no cargo boat should be sent off without a responsible sircar or peon in charge. The manjees and their crews who ply in this port are very nearly allied to the criminal classes, and consequently reasonable supervision by owners and agents is imperative. Sir John Lambert stated that all that could be done by the police force would be done, but it was impossible for a small body of police, who have to perform multifarious duties, to exercise complete control over the movements of dishonest boatmen, or to prevent their tampering on board their boats with goods entrusted to them. The Committee are glad to state that owing to the vigorous action of the police a stop has apparently been put to thefts on the river, but they fear that a considerable amount of robbery takes place on the way down from the gardens, and the detailed statements they have received from different members show that a very large quantity of tea has been pilfered from time to time. Some important papers in connection with this matter will be found printed in the Appendix.

FINANCES.

The total planted area represented by the Association during the year has been 265,138 acres against 243,278 acres, a fairly satisfactory, but still not in the opinion of the Committee, a sufficient increase, considering that the total area under cultivation in Assam, Cachar, Darjiling, the Duars, the Terai, Chittagong and Chota Nagpur is at the present moment 389,407 acres, and they trust at no distant date to see the whole of the tea industry of Northern India represented by the Association. The year's subscriptions at the rate of one anna per acre amount of R16,571-2-0, and the Committee have realized this year a further sum of R240-3-2 from the sale of Mr. Bamber's text-book on the "Chemistry and Agriculture of Tea" for which there is still a demand. The Revenue Account published shows a surplus of R3,947-11-3, and from the balance sheet it will be seen that the Committee had a balance in hand on the 29th of February, 1896, of R14,842-1-0. The Committee remitted to the London Association on account of the expenses of the London Office the sum of £200, the equivalent of which R3,498-13-9 is debited to Revenue Account, and has been provided

out of ordinary income. The balance of ordinary income over ordinary expenditure is generally about R4,000; but in the year which is now commencing, the General Committee will be called upon to meet an additional monthly expenditure of R200 as the Committee of Bengal Chamber of Commerce have suggested that, in view of the increased work connected with the Association, the monthly contribution to the funds of the Chamber should be raised from R400 to R600. The General Committee realizing that the work of the Association has largely developed in late years, in several directions have decided to recommend at the annual meeting that the request of the Committee of the Chamber should be complied with, and trust the recommendation will receive the support of members generally.

ANNUAL GENERAL MEETING.

Proceedings of the fifteenth annual general meeting of members of the Association, held at the Bengal Chamber of Commerce, on the 27th of May, 1896.

The Chairman said :—The report fully treats with labour and markets for our tea, but without labour we cannot get the produce, and yet it seems beyond reason that with the teeming million of people we should find any difficulty in securing labour. Markets also are not without difficulties, as it is easy to take a horse to the water, but it is quite another matter to make him drink, although a little coaxing might be resorted to, and this is being done.

The first estimate of the Indian crop issued in the middle of April anticipated an outturn of 144 million lb., but the unfavourable weather prevailing in some districts at the beginning of the season made this estimate drawn up some time previous, to be considered a full one, and it cannot be said from the general information received to date that the situation has in any way improved, but you can understand the difficulty in gauging the future when there are so many causes—climatic and otherwise—to contend with, which may materially affect the crop before it is gathered.

Out of the 144 millions, 16 millions are estimated for shipment to the Colonies and other ports and for local consumption, leaving 128 million lb. for Great Britain.

Ceylon has been annually showing considerable expansion in exports, and it is expected that they will reach over 100 million lbs. this year of which 15 millions will likely be taken by the Colonies and other foreign countries, but the eventual results will much depend on the weather.

The annual increasing production from India and Ceylon has caused some uneasiness, but with the increased consumption at home, and improving demand from other countries as well as the displacement of China and Japan teas, we have no reason to view the near future with alarm, on the contrary, the present statistical position points to the season's supply not being in excess of requirements.

I noticed from a Hong-Kong Circular the other day that the total exports of tea from all China for the past season was 140 million lbs. or 5½ millions more than in 1894-95.

It is indeed worthy of note to place these three countries' figures side by side and compare—

In 1875 China imported into U.K.			122	millions
" 1895 "	"	"	31½	"
" 1875 India & Ceylon	"	"	23¼	"
" 1895 "	"	"	190½	"

thus showing the rapid strides British-grown tea has made in 20 years.

The Budget shows a surplus of over six millions, and the outcry is that sufficient consideration has not been paid to the "breakfast table." As tea takes a very prominent position in that daily meal, doubtless the industry which, we are representing, before long will claim some attention from the Chancellor of the Exchequer, and he may see his way to making a further reduction of duty on tea.

The statistics available go to show that America imported during 1894, 102, against 98 million pounds in 1895, of which India and Ceylon contributed over nine millions last year, being an increase of four millions over 1894, the remainder being China and Japan. This will show the field we have yet to conquer in that direction, but a beginning has been made, and the efforts of the Associations with their able representative, Mr. Blechynden, will doubtless show greater results at the end of the current season. Americans do not appear to take very kindly to tea, judging from the fact that during 15 years the consumption only increased some 30 million lb., and now it is put down at 1·34 in pounds per head of population. So that there is in addition to the ousting of China and Japan, a great field for us to induce the Americans to transfer their fancy from iced drinks to the cup that cheers.

There is no saying also to what extent the ladies of America will go in the use of tea to supplant tobacco, because I have seen notice taken of the rage for cigarettes made of tea, and we hope the "weed" will grow largely in favour although we would not like them to jeopardise their constitutions in so doing.

That there is a wide opening for Indian tea in America and Canada is quite evident, and it appears that Indian in time will not only oust out a large influx of China and Japan manufacture into that country, but will also bring our teas into favour with those who now use beer or coffee at almost every meal. The taste of the American tea drinkers has been educated to green teas, and it will therefore take time to divert their liking to ours, but success is bound to attend our energetic efforts. Gardens have tried over and over again to make green teas, but abandoned them chiefly on account of the high cost of manufacturing, but this important matter deserves every consideration.

It is therefore incumbent on me to emphasize the grave error we would make, if we were to allow the position we have gained to relax in the slightest degree, in trying to win this promising market, which is so important to retain, in face of the large area of tea coming into bearing, during the next few years. Let those who have not yet made up their minds to contribute towards the American Fund, hesitate no longer to contribute their share of what is justly due by all with no exception. The appeal of the London and Calcutta Committees, it is therefore hoped, will receive that hearty support it so justly deserves.

We cannot, however, be expected to carry every market before us without opposition, and this recalls to my memory a recent article which I read bearing on adulterated teas being imported into America. It went on to say that the plan adopted to restrict or prevent the duty of inferior teas into America has so far proved futile, and stated that this refers particularly to the "bogus" teas which are not grown but manufactured from spurious leaves, tea dust, and colouring material. The mixture is made to look quite handsome to the inexperienced eye, and its sale returns good profits to unprincipled retailers. A chromo thrown in with every purchase makes the ignorant consumer apparently satisfied. There is no question about the legitimate trade being injured, and Mr. Bunn proposes to regain lost ground by needed legislation. Certain suggestions have been made by this gentleman which, it is acknowledged, would be a vast improvement over the present system, but the House of Representatives appear indifferent. It would therefore be well for the tea trade to agitate the necessary reforms in admitting tea into America, and it is to be hoped that a matter so detrimental to our interests, will claim the earnest attention of all concerned in the welfare of our industry.

It is said by some that tea causes many local diseases, and you sometimes see articles running in this strain, but much, I am afraid, is due to the manner in which it is infused or rather "stewed" and, the adoption of "Chinese rubbish," which it is often termed, in place of using our pure Indian tea manufactured entirely by machinery and not by hand as in China. It is to be hoped that consumers will soon learn to infuse tea for three to four minutes only, with fresh boiling water, and to bear in mind that Indian possesses more body and finer flavour and at less relative cost to the consumer than China.

There are other markets which have still to be captured and they are deserving of the earliest attention. South Africa seems a likely market for our teas, and with an ever-increasing population it is to be hoped that our manufacture will soon find its way in large quantities to that market. It is said that the people there drink inferior China and Natal teas when they can get it, and we should lose no time in entering that market with vigour. There is a large mining population in Johannesburg, and there are other rapidly growing places, and as the miner prefers tea to liquor, which is excessively dear, in all reasonable likelihood, he would take to tea, if he can get it good, and will no doubt pay well for it.

The Negro population of New Orleans, Alabama and other places in the States buy largely, but the coloured people living in the south, although not of the same liking, should not be forgotten, while Russia, consuming 70 million pounds of tea, and Persia should claim a large share of our attention, where our teas are gaining favour as against China.

We do not appear to make much headway in the Colonies in competition with China and Ceylon, the proportions being put down at six millions Indian, nine millions Ceylon and 11 millions China, making the consumption per head of about 7 lb., as against the United Kingdom of 5¼ to 5½ lb.

The India, Burma and Ceylon Exhibition was opened at Earl's Court on the 9th instant and it is reported that the Indian exhibits exceed those of last year three times over. We all realize the importance of having our manufacture brought prominently before the British public, and influential visitors to London and the Exhibition, who it may be expected will take back to their own countries, not only a liking themselves for a real good cup of tea, but initiate its use among their friends and in turn the thousands.

It is not too late to send samples, as it is most desirable to make a creditable appearance alongside of Ceylon, and no doubt the cleanly method of manufacturing by machinery and other demonstrations will be shown, as it is well that people should know that no foreign colouring substances are used, and that our teas are manipulated entirely by machinery.

We are much indebted to Dr. Watt for his valuable hints on tea blights, and we trust that Government will see their way to allowing him to prosecute his researches in the districts for a few months, and thus enable him to further investigate the terrible pest of the tea bush and thereby assist in suggesting certain remedies whereby its ravages may be allayed.

In regard to the appointment of a Scientific Officer for the tea districts for a term of years it seems reasonable to expect, and it may be said to be beyond doubt, that such a specialist would be invaluable to the industry at large, as he would be able to thoroughly investigate the many points which must arise in the chemistry of the tea plant and the cultivation and manufacture of it. Much has yet to be learnt on the subject of proper cultivation of the plant, and remedy for blights and the investigations would contemplate certain inquiries into the physiology and chemistry of the tea plant, the manufacture of tea, and especially the eradication or treatment of diseases, pests and blights. It is hardly to be expected that an officer can efficiently investigate all these points, but an expert in chemistry would be able to make such observations and collections in both botany and entomology as to ensure assistance from the Economic Department of Government, and we have every reason to believe that Government would render valuable assistance in this and other ways.

It is estimated that to secure a really good man R1,500 per month would have to be offered and guaranteed for five years, and the question now arises in what way the necessary funds would be best raised. Mr. Buckingham suggests a voluntary subscription of one anna per acre under cultivation, and this probably would be the best means of securing the necessary funds, but the Committee are anxious to have the views of all interested in such an important matter, and proprietors, agents and managers will be circularized to obtain their opinions.

The Committee have to express regret that, owing to the non-receipt of one of the statements of account, they are unable to place the accounts of the American Market Fund before this meeting, but they will be issued as soon as the necessary information is received which has been written for.

The Hon. P. Playfair, C. I. E., said :—The expansion of markets is a feature full of encouragement in the future prospects of Indian tea. The results anticipated by the Association when it decided to make an effort to introduce Indian tea to the American consumer appear likely to be fulfiled. Much credit is due to Mr. Blechynden, and the resource and energy he has displayed are both instructive and commendable.

You have alluded, Sir to remarks made by the chancellor of the Exchequer on the introduction of the Budget, and you may have observed that he congratulated those who desire to promote trade within the limits of the Empire, that the trade in tea was being rapidly transferred from China to India and Ceylon; and that the duty with an increased consumption of 10 million lbs. had risen to £3,745,000. To produce this, Indian and Ceylon teas were taxed to the extent of £3,200,000, or Rs. 5½ crores, and of this amount Indian teas contributed about Rs. 3¼ crores, or I might add in passing, Rs. 2½ crores more than is the estimated income in the Indian Budget for the current year from import duties on cotton goods, over which so much indignation has been expressed at Home. It is a noticeable fact that although tea is one of the few products of India that finds a market from its intrinsic merit, *i. e.*, superior quality, consumption is very dependent upon price. Deliveries decrease with a rise in values, and *vice versa*, and I believe the free breakfast table is a future fiscal achievement in which India and Ceylon, as the suppliers of 85 per cent. of the tea consumed in the United Kingdom, is much interested. This is a matter to which I think this Association should not be indifferent.—*Englishman*, June 2.

TICK IN CATTLE

[The following information may be of help to "R. W." who wrote us recently on this subject.—ED. *T. A.*]

Dr. M. Francis, veterinarian to the Texas Experiment Farm, has been investigating the methods of destroying ticks in cattle, and has communicated his results to the *Texas Farm and Ranch* of March 14. After several unsuccessful attempts to destroy the pest by various means, the dipping-process has been adopted at Texas with very gratifying results.

A large vat of 5,000-gallons capacity is used, and the cattle are forced to swim through it. Various carbolic and arsenical sheep-dips were employed as solutions in the vat, but the results were not satisfactory; either the cattle had to be kept in the dips for too long a time in order to kill all the ticks or they were irritated by the solutions. This led Dr. Francis to try the effect of oil. It is well known that grease or oil of almost any kind is fatal to insects, lice &c. and known facts as to the life history and structure of ticks gave presumptive evidence that oil might be successfully substituted for the various commercial dips which had been employed. A layer, from three-quarters to one inch in thickness, of crude cotton seed oil on the water in the vat, was first used, the cattle being forced to swim through the vat so that when they emerged they were covered perfectly with oil. This had no apparent effect on the cattle, but was found to be exceedingly fatal to the tick, and was very much superior to any other treatment tried. Dips of different natures were experimented with, but none as yet used have given such satisfactory results as the cotton-seed-oil. Kerosene emulsion was found to have no practical value; crude petroleum irritates the skin, and emulsifies with

water; resin oil is useless for the purpose; corrosive sublimate is too dangerous, and is not very fatal to ticks even in solution 1 to 250 of water; and tobacco sheep-dips have no practical value. Dr Francis is at present studying the effects of other oils the most promising being West Virginia black, a mineral oil.—*Chemist and Druggist*, May 23.

SERENDIB TEA ESTATES COMPANY, LTD., CEYLON.

The mail has brought us a copy of the prospectus of this Company formed with a capital of £150,000 in 30,000 shares of £5 each (whereof 18,000 are 6 per cent cumulative preference shares preferred as to capital as well as to dividend), and 12,000 are ordinary shares), for the purpose of acquiring five estates in the districts of Pussellawa, Ramboda and Badulla, aggregating a total area of 1,898 acres, of which about 942 are in tea, and the balance is described as chena, forest, and grass land, a large portion of which is available for tea planting. The officials are :—Directors.—William Stephenson Bennett, Director of the New Dimbula Co., Ltd., Tower House, Chalvey Park, Slough, who will join the board after allotment; Herbert Wilford Brett, Halliford-on-Thames ; John Loudoun Shand (Messrs. Shand, Haldane & Co.), 24, Rood Lane, E.C. ; Patrick Gordon Spence, (Messrs. Spence, Wallis & Co.), Chairman Duckwari Tea Plantation Company, Ltd., 17, Philpot Lane, E.C. Bankers.—Chartered Bank of India, Australia and China, Hatton Court, Threadneedle Street, E.C. Brokers.—Messrs. Roger Mortimer & Co., 57, Old Broad Street, E.C., and the Stock Exchange. Solicitor.—H. B. Wade, 8, Old Jewry, E.C. Secretary and Offices.—H. Wallis, 71, Philpot Lane, E.C. The following are particulars of the estates, showing the acreage under tea and in reserve :—

	Tea in full bearing.	4 years old.	3 year old and under.	Fuel and Timber.	Chena, Patna, &c.	Total Acreage.
"Riverside" ..	268	3	19	12	88	390
"Glenloch" ..	135	—	40½	58	82½	316
"Karagastalawa" ..	120	—	—	72	200	392
"Wewesse" and "Debedde" ..	245	50	61	120	324	800
	768	53	120½	262	694½	1898

In the present issue provision is made for a working capital of £7,000, which in the opinion of the Directors is ample, as the estates taken over are all going concerns. The production for the current year of these estates, is estimated at 330,000 lb. of tea from 821 acres in full bearing, the profit upon which calculated at only 3d per lb. is equal to £4,125, which is ample to provide for the preference dividend upon the capital allocated, and leave a good return upon the paid-up ordinary share capital involved in the purchase, and as the balance of say 121 acres now in young tea comes into full bearing, the production should be increased to at least 375,000 lb. of tea, and larger profits be in consequence realized.

DEAFNESS. An essay describing a really genuine Cure for Deafness, Ringing in Ears, &c., no matter how severe or long-standing, will be sent post free. Artificial Ear-drums and similar appliances entirely superseded. Address THOMAS KEMPE, VICTORIA CHAMBERS, 19, SOUTHAMPTON BUILDINGS, HOLBORN ; LONDON.

The Vendor Company will pay all expenses up to the first allotment of shares except those incidental to the registration of the Company, and have fixed the purchase price (which includes their profit) at £56,000, payable as to £30,000 in cash, £13,000 in fully paid-up preference shares, or partly in cash and partly in preference shares at the option of the directors, and £13,000, in fully paid-up ordinary shares.

CEYLON TEA COMPANY, LIMITED.

At the Fifth Ordinary General Meeting of shareholders in the Ceylon Tea Company, Limited, held at Kandy on Monday, the 15th June 1896, there were present Messrs. W. D. Gibbon, J. Munton, A. Philip, Mr. A. E. Wright by his attorney W. D. Gibbon. Mr. Gibbon held a proxy from Mr. A M. Forbes, Mr. Munton held a proxy from Mr. Harry Whitham, and Mr. Philip held proxies from the following shareholders :—Capt. E. de Frisch, Messrs. James Westland, A. E. Holsinger, J. H, Renton, C. S. Armstrong C. J. Pattenson, F. T. Hawke, Reginald Collinson, H. V. Masefield, Edward Hamlin, R. Bartrum, C. A. Kalenberg, J. A. Spence, P. Japheth, Wm. A. Wijesekera, W. Hasman, A. J. B. Unwin, J. H. Cobban Lea, Sinnattamby Wellupilley, and R. Burke, Mrs. E. A. Carey.

The Annexed Report was adopted and Messrs. W. D. Gibbon and C. S. Armstrong were elected Directors, while Mr. J. Guthrie was reappointed auditor.

REPORT OF THE DIRECTORS.

The Directors submit to the Shareholders the Fifth Annual Report together with the usual statements of accounts.

The Directors have steadily kept in view the advertising of pure Ceylon Tea, and their endeavours have met with a satisfactory response in this respect, orders having been received and repeated from Home and the Continent as well as the Colonies. A list is appended at the foot of this report.

The gross sales of Tea show an increase on the previous year, and the quality has been much appreciated by visitors to Ceylon and others.

In continuation of the policy initiated by the present Directors to reduce liabilities incurred in advertising and introducing Ceylon Tea on the Continent and in America, the Board has decided to write off a portion of the amount. The working of the Company for the past year may be considered satisfactory, and under ordinary circumstances a dividend has been earned.

While, however, the comparatively large amount of Capital—R3,654·74—remains locked up in the New Oriental Bank Corporation, Limited, in Liquidation none can be paid for the present.

MEMO. OF PLACES TO WHICH CEYLON TEA HAS BEEN SENT IN 1895-96.

Australia.—Adelaide, Albany, Melbourne, Sydney.
Austria.—Fume Gratz.
Aden.—Aden.
China.—Hongkong, Shanghai, Tientsin.
Egypt.—Port Said, Suez, Cairo.
France.—Castres, Giron es

Great Britain.—Bristol, Brighton, Bonchurch, Berkley, Beverley, Buzzard, Colchester, Covan, Canterbury, Cowes, Chatham, Croyden, Dloore, Dublin, Dulwich, Dunnore, Donegal, Dunedin, Edinburgh, Erlington, Glasgow, Halifax, Havant, Inverkip, Ipswich, Kingstown, Letterkenny, Kel', Liverpo l, London, Leicester Loughborough, Leeds, Lettes, Lurgan, Leighton, Malo haum, Maynalty, Macclesfield, Man Nottingham, Praiguton, Plymouth, Ridgsrove, Southampton, Shrewsbury, Spilsby, South Sea, Tillicoultry, Western Supermare, Wellingboro', Alloa, Aberdeen, Abbotsbury, Basingstake, Cork, Cheltenham, Dumbarton, Devon-

port, Forfar, Lydd, Maerhip, Northback, Penzance, Preston, Teddington, Whittesford, Winchfield, Weymouth, Wolverhampton.

Germany.—Insel-Leipzig, Reigen, Weimar.
Hungary.—Buda-Pesth.
Holland.—Amsterdam.
India.—Calcutta, Rawal Pindi, Umballa, Karachi.
Japan.—Yokohama.
Mauritius.—Mauritius.
Singapore.—Singapore.
United States of America.—Detroit.

Note.—A. Tea is delivered at any port in the world, and B. At any address in Great Britain, freight, duty and all charges paid, either before shipment or on delivery at destination. Rates on application.

The quality of the teas is always maintained regardless of cost, the X Blend Tea being a Blend of the choicest Ceylon Teas obtainable.

Remittance by P. O. Order or Bank Draft, which should accompany Order, to be made payable to the Ceylon Tea Company, Limited.

OUVAH AND SPRING VALLEY COMPANIES.

The annual meetings took place at the London office of the Companies on 27th May, Mr. Alfred Brown presiding, supported by his brother Directors, including Mr. Oswald, while some half-dozen City shareholders made up the meeting—the only old Ceylon resident besides, I noticed, being Mr. Geo. Smyttan Duff, the former respected Manager of the old Oriental Bank, whom I was glad to see looking exceedingly well considering his years.

I sent you the Spring Valley Report last mail—that of the Ouvah Company may have reached you also, but in case not, I send it now. [Duly received and published.—ED. *C.O.*] The fact emphasized by the Chairman most in both cases, was the better price paid for their teas last year than in 1894; the good yield of crop and the first-class factories provided. In the case of SPRING VALLEY, a good coffee crop had helped in 1895; but this was not to be repeated in 1896—when the crop would be poor, and although tea was increasing, yet with the area of young tea to keep up and that to be planted—150 acres in '96 and '97, till 1,650 acres in all were reached—the Chairman could not say how the dividend for the present year might be, though the prospects thereafter should be good. He considered the Company should stop planting at 1,650 acres, or at any rate add to this slowly if at all. The purchase of Kotagodde estate had been a good one, strengthening the Company, and he congratulated the shareholders on the increased value of their property as a whole—shares which were at £2 not long ago, being now at £6.

A SHAREHOLDER wanted to know, in the case of Kotagoda, how the purchase money (£6,300) was provided.

ANOTHER SHAREHOLDER—if the 5 per cent dividend would be kept up for 1896.

A THIRD SHAREHOLDER—how much of the area in tea on Spring Valley was on old coffee land, and how much, if any, on virgin land.

The CHAIRMAN replied that the Directors were inclined, if approved by shareholders, to pay for Kotagodde out of profits taking £1,000 a year or so. Next, that it was impossible at present to say how the dividend might be—much would depend in the coffee prospects for '97; for if the Directors felt assured that a good sum was to come in for coffee next year, they might feel more justified in recommending a good dividend for 1896.—As to area planted, most of Spring Valley tea was on coffee land, very little on patna or scrub, and there was this to remember that the worst coffee on the estate was first superseded by tea, so that there was further reason to expect better crops from the younger tea.

The Reports of both Companies were duly carried.

The CHAIRMAN in proposing that Mr. Oswald take the place permanently of Mr. Potts as Director, spoke in high terms of the aid he had already rendered, and of the large stake in the Companies' shares he represented.—The election was duly carried.

In moving a vote of thanks to the Chairman, Directors and officers of the Company, Mr. J. FERGUSON congratulated the shareholders on securing one so well-qualified to succeed the late Mr. Brown as Chairman, and on adding to the Board a gentleman with the business capacity and Ceylon experience possessed by Mr. Oswald, whom he know to be highly esteemed; while in their Secretary, and Ceylon Managers they had all good men and true.—Carried with applause, Mr. Brown and Mr. Oswald duly returning thanks.

SMOKERS SHOULD USE
CALVERT'S DENTO-PHENOLENE,
A FRAGRANT LIQUID DENTIFRICE AND MOUTH-WASH.
Editor of *Health* says:—"The most effective preparation for ridding the mouth of the aroma of tobacco, and leaving a pleasant taste."
Sold in 1s. 6*d*., 2*s*. 6*d*., and 1 lb. 7*s*. 6*d*. bottles, by Chemists, &c.
F. C. CALVERT & CO., MANCHESTER.

A NEW PATENT ROLL-BREAKER.

Apparatus for breaking up balls of rolled tea, giving the leaves a final roll, and separating the finer and coarse portions while freely exposed to the air. The leaves are fed by a hopper between a fixed corrugated plate and a rotary corrugated disc which is driven by a shaft adjustably mounted in a footstep bearing. The leaves fall from the edge of the disc upon a screen, which is oscillated by a cam on the shaft, and the larger leaves fall from the end of the seive, while smaller ones pass through it. The upper plate may be fitted with a steam jacket, when it is desired to heat the leaves under treatment, and it may be hinged at one side in order to give access to the corrugated surfaces. A modified form of the apparatus is described in which the discs are arranged vertically.—*Illustrated Official Journal* (*Patents*). May 20.

COORG: A NEW TEA DISTRICT.—There is no end to the faith that is held in tea. The latest district to point out the desirability of opening out in tea is Coorg, where the Western Ghauts are considered peculiarly favonrable. The rainfall is certainly amplo enough and the forest land good and abundant. Certainly West Coorg is a district to prospect for men who are still sanguine of tea paying for the next twenty years or so. We believe we are correct in stating that the two failures in experimental tea cultivation—both in or very near Mercara—were due to the extreme shortness of yield owing to the rainfall at this station not being sufficiently distributed, coupled with the wretched "grass" land chosen for the sites. Further west, down the ghaut, conditions are far more favonrable. The only drawback is the fact that during the S.W. monsoon no produce can be shipped from the Coast. Were, however, the contemplated pier at Tillicherry constructed, as it undoubtedly should be, this objection would be removed.—*Planting Opinion*, June 20.

COLOMBO PRICE CURRENT.

(*Furnished by the Chamber of Commerce*).

Colombo, June 23rd, 1896.

EXCHANGE ON LONDON: CLOSING RATES, *Bank Selling Rates*:—On demand 1/2¼ to 5-32; 4 months' sight 1/2 5-32 to 3-16; 6 months' sight 1/2 3-16 to 7-32. *Bank Buying Rates*:—Credits 3 months' sight 1/2 9-32 to 5-16; 6 months' sight 1/2 5-16 to 11-32. Docts. 3 months' sight 1/2 5-16 to 11-32; 6 months' sight 1/2 11-32 to ⅜.

COFFEE.—Plantation Estate Parchment on the spot per bus., R17·00 to 17 75.—Very scarce. Estate Crops in Parchment, delivery, per bushel, no quot. Plantation Estate Coffee, f.o.b. on the spot per cwt, R87·50 to 90·00.—very scarce. Liberian parchment on the spot per bushel, 12·00. Native Coffee f.o.b. per cwt. R71.

TEA.—Average Prices ruling during the week: Broken Pekoe, per lb 53c. Pekoe per lb 40c. Pekoe Souchong, per lb 31c Broken mixed and Dust, per lb 28c.—Averages of Wednesday's sale.

CINCHONA BARK.—Per unit of Sulphate of Quinine, per lb 1½c. to 3½c. 1 to 3 %. Twigs and branch no quotation.

CARDAMOMS.—per lb R2·25 to 3·00.

COCONUT OIL.—Mill oil per cwt. R14·75. to 15·00. Dealer's oil per cwt. R14·12. Coconut oil in ordinary packages f.o.b. per ton. R320.—Buyers at R315.

COPRA.—Per candy of 560 lb R32·00 to 38·00

COCONUT CAKE: (Poonac) f.o.b. per ton, R55 to 65.

Cocoa.—Unpicked and undried, per cwt. R30 to 38.

COIR YARN.—Nos. 1 to 8 { Kogalla per cwt. .. .. / Colombo side .. ..

CINNAMON.—Nos. 1 & 2 only f.o.b. 67c.—Nominal. Ordinary Assortment, per lb 63c.—Nominal.

EBONY: per ton.—No sales.

PLUMBAGO: Firm and scarce.—Large Lumps per ton, R150 to 330. Ordinary Lumps per ton, R130 to 290. Chips per ton, R80 to 140. Dust per ton, R30 to 90.

RICE.—Soolye per bag, R7·63 to R8·80.
Pegu and Calcutta Calunda per bag R8·15 to R8·50,
Coast Calunda per bushel, R3·00 to R3·30.
Muttusamba per bushel, R3·12 to R3·65.
Kadappa and Kuruwe per bushel—No quotations.
Rangoon Raw 3 bushel, bag. R9·00.

FREIGHTS.

Cargo.	Per ton London per str.	N. York per str.	Trieste per str.	Mar'lles per str.	Hamb', Bremen &c.
	s. d.	s. d.	s. d.	s. d.	s. d.
Tea	25/	..	25/	25/	15/
Coconut Oil	20/	..	20/	25/	15/
Plumbago	17/6	..	20/	25/	15/
Coconuts in bags	17/6	..	20/	25/	15/
Other Cargo	20/	..	20/	25/	15/
Broken Stowage	12/6	..	..	..	..
SAILERS.					
Coconut Oil	..	28/9	..	..	..
Plumbago	..	..	..	..	..

New York rates per steamer with transhipment 12/6 @ 15/ above London rates.

LOCAL MARKET.

By Mr. A. M. Chittambalam, 7, Baillie St., Fort

Colombo, June 23rd, 1896.

Garden Parchment :—	R14·50 to 15·25	per bushel
Chetty do :—	15·50 to 16·50	do
Native Coffee :—	62·00 to 63·00	per cwt
do f.o.b. :—	69·00 to 70·00	do
Liberian Parchment,	12·00	per bushel (nominal)
do Coffee,	60·00 to 62·00	per cwt
CARDAMOMS.—	0·70 to 1·75	per lb (nominal
COCOA.—(nominal)	32·00 to 40·00	per cwt do
RICE.—Market Steady:—		
Kazla	R6·75 to 7·25	per bag
Soolye	7·50 to 8·00	do
Callunda	8·00 to 8·25	
Coast Callunda	3·00 to 3·25	per bushel
Kuruve (Scarce)		
Muttusamba	3·25 to 3·50	do

CINNAMON.—Quoted Nos. 1 to 4, at 63c and Nos. 1 and 2 at 66 cents per lb (nominal)

CHIPS.—R75·00 per candy (nominal)

COCONUTS.—Ordinary	R40·00 to 43·00	per 1,000 (nominal)
do Selected	44·00 to 47·00	do do
COCONUT OIL.—	15·00 to 15·12	per cwt do
COPRA.—Market steady:—		
Kalpitiya	R48·00 to 48·75	per candy
Marawila	47·00 to 47·50	do
Cart Copra	43·00 to 45·00	do
POONAC.—Gingelly	77·50 to 85·00	per ton
Chekku	95·00 to 100·00	do
Mill (retail)	70·00 to 75·00	do
EBONY.—quotations at	R100 to R185	(nominal)
SATINWOOD.—cubic feet	1·50 to 2·12	do
HALMILLA.— do	1·25 to 1·50	do
KITUL FIBRE.—Quoted at	R30·00	per cwt (nominal)
PALMYRA FIBRE.—Quoted nominally:—		
Jaffna Black.—Cleaned	(Scarce)	
do Mixed	R18·00 to 18·50	per cwt.
Indian do	R7·00 to 9·00	do
Do Cleaned	10·00 to 14·00	
SAPAN WOOD.—Quoted	55·00 to 60·00	per ton
KEROSINE OIL—American	7·50 to 7·60	per case
do Russian	3·49 to 3·44	per tin
KAPOK.—Cleaned f. o.b :—	(Scarce)	
do Uncleaned (new)	4·50 to 5·00	per cwt
Croton Seed	13·00 to 17·00	do
Nux. Vnomica	2·50 to 3·00	per cwt

CEYLON EXPORTS AND DISTRIBUTION 1895-1896.

COUNTRIES.	Coffee cwt. Plan-tation	Coffee cwt. N'tive	Coffee cwt. Total.	Cinchona. 1896 B'nch & Trunk lb	Tea 1896 lb.	Tea 1895 lb.	Cocoa cwt.	C'moms lb.	Cinnamon. Bales lb.	Cinnamon. Chips lb.	Coconut Oil 1896 cwt.	Coconut Oil 1895 cwt.	P'bgo. 1896 cwt.
To United Kingdom	5475	5	5480	456404	48405181	41732599	17924	63426	360453	148826	31407	59685	58322
" Austria	486	..	486	..	28714	1970	32	..	5300	80300	14101	7655	..
" Belgium	2	..	2	..	19147	4206	82	2000	16200	66188	1408	2700	4830
" France	455	..	455	..	32420	24036	335	3000	26400	3500	114	..	2005
" Germany	553	6	559	..	44925	125243	858	32019	151009	69902	3451	9408	11629
" Holland	..	..	..	..	3889	6735	..	..	..	..	400	..	501
" Italy	6	..	6	4188	6087	3873	6	..	36100	26208	506	401	264
" Russia	59	..	59	..	165657	136196	..	..	..	..	26	..	21
" Spain	..	..	..	..	29800	15725	..	..	102330	2520	208	..	..
" Sweden	52	..	52	..	..	..	..	..	299	112	..	..	..
" Turkey	..	..	..	..	10692	5517	..	..	..	..	..	..	..
" India	221	..	221	1379	538542	392348	2	83950	..	..	25255	1036	199
" Australia	2094	302	2396	..	5461582	4474519	30	..	6508	6328	1709	1196	3234
" America	201	..	201	108390	254533	197019	211	..	86000	..	13062	55506	66326
" Africa	..	..	..	..	43664	58968	..	..	..	..	4	..	502
" China	188	..	188	..	79433	123907	..	200	14400	..	2493	165	..
" Singapore	4	..	4	..	43377	14754	241	..	..	..	21828	4991	..
" Mauritius	75	28	103	..	48884	71799	..	..	..	..	..	..	..
" Malta	..	..	..	..	67800	22795	..	..	..	..	..	..	..
Total exports from 1st Jan. to 23rd June 1896	9981	341	10322	570361	55284327		19801	184595	798999	403884	115992		147833
do 1895	33176	2235	35411	471236	47412209		18202	205769	654591	391284	142743		126934
do 1894	11703	420	12123	1001846	42547104		10150	162423	557920	265293	179120		121690
do 1893	30090	1620	31710	2371623	41021513		20293	202111	596496	278732	136450		192737

MARKET RATES FOR OLD AND NEW PRODUCTS

(From Lewis & Peat's Fortnightly Prices Current, London, June 3rd, 1896.)

	QUALITY.	QUOTATIONS.
ALOES, Socotrine	Fair to fine dry	44s a 100s
Zanzibar & Hepatic	Common to good	11s a 76s
BEES' WAX,		
Zanzibar & Bombay { White	Good to fine	£7 a £8
Zanzibar & Bombay { Yellow	Fair	£6 5s a £7
Mauritius & Madagascar	Dark to good palish	£6 5s a £7
CAMPHOR, China	Fair average quality	97s 6d
Japan	,, ,, ,,	120s
CARDAMOMS, Malabar	Clipped, bold, bright fine	1s 1d a 2s 8d
	Middling, stalky & lean	1s 5d a 1s 9d
Ceylon.—Mysore	Fair to fine plump	1s 8d a 3s 7d
	Seeds	2s 9d a 3s 2d
,, Tellicherry	Good to fine	1s 8d a 2s
	Brownish	1s 3d a 1s 8d
,, Long	Shelly to good	1s 6d a 3s
,, Mangalore	Med brown to good bold	2s 2d a 3s 9d
CASTOR OIL, Calcutta	1sts and 2nds	2½d a 3⅜d
Madras	1sts and 2nds	2¼d a 2½d
CHILLIES, Zanzibar	Dull to fine bright	28s a 37s 6d
CINCHONA BARK.—		
Ceylon	Ledgeriana Chips	1d a 3½d
	Crown, Renewed	2d a 4¼d
	Org. Stem	1¼d a 3d
	Hybrid Root	2¼d a 2½d
	Chip	1¼d a 2d
CINNAMON, Ceylon 1sts	Ordinary to fine quill	10½d a 1s 1d
2nds	,, ,,	9¾d a 1s
3rds	,, ,,	9 d a 11½d
4ths and 5ths	Woody and hard	8½d a 9½d
Chips	Fair to good	3d a 3⅜d
CLOVES, Penang	Dull to fine bright bold	7d a 11d
Amboyna	Dull to fine	3¼d a 4¾d
Zanzibar and Pemba	Good and fine bright	2¼d a 2½d
	Common dull to fair	1⅞d a 2⅛d
Stems	Fair	13-16d
COCULUS INDICUS	Fair	7s 6d a 8s
COFFEE		
Ceylon Plantation	Bold to fine bold colory	110s a 118s
	Midding to fine mid	100s a 108s
	Low mid. and low grown	95s a 100s
	Smalls	88s a 92s
Native	Good ordinary	78s a 82s
Liberian	Small to bold	75s a 83s
COCOA, Ceylon	Bold to fine bold	58s a 70s 6d
	Medium and fair	50s a 56s
	Triage to ordinary	20s a 50s
COLOMBO ROOT	Fair to good	12s a 14s
	Ord. & middling wormy	9s a 11s
COIR ROPE, Ceylon		nominal
Cochin	Ordinary to fair	£10 a £15
FIBRE, Brush	Ord. to fine long straight	£10 a £24
Cochin	Ordinary to good clean	£12 a £14
Stuffing	Common to fine	£5 a £6 10s
COIR YARN, Ceylon	Common to superior	£12 a £26 10s
Cochin	,, ,, very fine	£12 a £34
do.	Roping, fair to good	£11 10s a £15
CROTON SEEDS, sifted	Fair to good	65s
CUTCH	Fair to fine dry	17s a 32s 6d
GINGER, Bengal, rough	Fair	16s
Calicut, Cut A	Good to fine bold	60s a 70s
B & C	Small and medium	42s a 56s 6d
Cochin Rough	Common to fine bold	32s 6d a 35s
	Small and D's	28s a 30s
Japan	Unsplit	22s a 23s
GUM AMMONIACUM	Sm. blocky to fine clean	17s a 36s 6d
ANIMI, Zanzibar	Picked fine pale in sorts	£10 7s 6d a £13
	Part yellow and mixed	£7 17/6 a £10 10s
	Bean and Pea size ditto	70s a £7 12/6
	Amber and dk. red bold	£4 5s a £9
	Med. & bold glassy sorts	90s a 120s
Madagascar	Fair to good palish	£4 8s a £6 15s
	,, ,, red	£5 a £7 5s
ARABIC E. I. & Aden	Ordinary to good pale	50s a 70s
Ghatti	Pickings to fine pale	25s a 75s
Kurrachee	Good and fine pale	65s a 75s
	Reddish to pale selected	35s a 55s
Madras	Dark to fine pale	15s a 65s
ASSAFŒTIDA	Clean fr. to gd. almonds	10s a 70s
	Ord. stony and blocky	15s a 35s
KINO	Fine bright	£20 a £25
MYRRH, picked	Fair to fine pale	80s a 90s
Aden sorts	Middling to good	45s a 65s
OLIBANUM, drop	Good to fine white	35s a 60s
	Middling to fair	20s a 31s
pickings	Low to good pale	7s a 15s
siftings	Slightly foul to fine	9s 6d a 14s
INDIARUBBER, Assam	Good to fine	1s 10d a 2s 3½d
	Common to foul & mxd.	3d a 1s 6d
Rangoon	Fair to good clean	1s 4d a 1s 11½d
Borneo	Common to fine	1s a 1s 8d

	QUALITY.	QUOTATIONS
INDIARUBBER, *(Contd).*		
Java, Sing. & Penang	Foul to good clean	1s 6d a 1s 2d
Mozambique	Good to fine Ball	2s 2d a 2s 5d
	Ordinary to fair Ball	1s 2d a 2s 1¾d
	Low sandy Ball	10d a 1s 1d
	Sausage, fair to good	1s 4d a 2s 5½d
	Liver and livery Ball	1s 3½d a 2s 2½d
Madagascar	Fr. to fine pinky & white	1s 11¼d a 2s 5d
	Fair to good black	1s 3d a 1s 10d
	Niggers, low to good	10¼d a 1s 7¾d
INDIGO, E.I.	Bengal—	
	Shipping mid to gd violet	4s 6d a 5s 2d
	Consuming mid. to gd.	3s 9d a 4s 4d
	Ordinary to mid. good	2s 10d a 3s 8d
	Mid. to good Kurpah	2s 6d a 3s 3d
	Low to ordinary	1s a 1s 6d
	Mid. to good Madras	1s 4d a 2s 10d
MACE, Bombay, & Penang	Pale reddish to fine	1s 8d a 1s 10d
	Ordinary to fair	1s 3d a 1s 6d
	Chips and dark	1s
MYRABOLANES, Madras	Dark to fine pale UG	2s 6d a 4s 6d
	Fair Coast	4s 3d
Bombay	Jubblepore	3s 9d a 6s
	Bhimlies	3s 9d a 7s
	Rhajpore &c.	3s 6d a 5s 6d
Bengal	Calcutta	3s 6d a 5s 6d
NUTMEGS—	64's to 57's	2s 11d a 3s 2d
Bombay & Penang	110's to 80's	1s 2d a 1s 10d
	160's to 130's	9d a 1s
NUTS, ARECA	Ordinary to fair fresh	8s 6d a 12s 6d
NUX VOMICA, Bombay	Ordinary to middling	4s 6d a 6s
Madras	Fair to good bold fresh	6s a 7s 6d
	Small ordinary and fair	4s 6d a 7s
OIL OF ANISEED	Fair merchantable	8s a 8s 3d
CASSIA	According to analysis	4s 8d a 6s
LEMONGRASS	Good flavour & colour	2½d
NUTMEG	Dingy to white	3¼d a 4d
CINNAMON	Ordinary to fair sweet	4d a 1s 3d
CITRONELLE	Bright & good flavour	1s 6d
ORCHELLA WEED—		
Ceylon	Mid. to fine not woody	11s a 15s
Zanzibar.	Picked clean flat leaf	10s a 20s
	,, wiry Mozambique	15s a 17s 6d
PEPPER - (Black)—		
Alleppee & Tellicherry	Fair to bold heavy	2¼d a 2½d
Singapore	Fair	2 7-16d
Acheen & W. C. Penang	Dull to fine	2d a 2⅜d
PLUMBAGO, lump	Fair to fine bright bold	15s a 17s 6d
	Middling to good small	3s 6d a 13s
chips	Dull to fine bright	1s 6d a 8s 9d
dust	Ordinary to fine bright	2s a 6s
SAFFLOWER	Good to fine pinky	85s a 90s
	Middling to fair	80s
	Inferior and pickings	60s a 65s
SANDAL WOOD—		
Bombay, Logs	Fair to fine flavour	£30 a £50
Chips		5s a £3
Madras, Logs	Fair to good flavour	£30 a £50
Chips	Inferior to fine	£4 a £8
SAPAN WOOD, Bombay	Lean to good	£4 a £6 5s
Madras	Good average	£4 a £6 nom.
Manila	Rough & rooty to good	£4 10s a £5 15s
Siam	bold smooth	£6 a £7
SEEDLAC	Ord. dusty to gd. soluble	70s a 95s
SENNA, Tinnevelly	Good to fine bold green	6d a 8d
	Fair middling medium	2¼d a 5½d
	Common dark and small	½d a 2d
SHELLS, M. o'PEARL—		
Bombay	Bold and A's	£4 2s 6d a £4 5s
	D's and B's	£3 15s a £4 10s
	Small	72s 6d a 80s
Mussel	Small to bold	10s a 50s
TAMARINDS, Calcutta	Mid. to fine bl'k not stony	9s
Madras	Stony and inferior	6s a 7s
TORTOISESHELL—	Selected	55s
Zanzibar and Bombay	Small to bold dark mottle part heavy	19s a 25s 6d
TURMERIC, Bengal	Fair	[illegible] 3d
Madras	Finger fair to fine bold	5s a 9s 6d
Do.	Mixed midlng. bright	7s a 8s
Do.	Bulbs	6s 6d a 7s 6d
Cochin	Finger	7s a 7s 6d
	Bulbs	5s 6d a 7s 6d
VANILLOES—		
Mauritius and Bourbon 1sts	Gd. crystallized 4 a 9 in.	17s a 32s
2nds	Foxy & reddish 4½ a 8 ,,	11s a 15s
3rds	Lean and inferior	7s a 10s
Seychelles	Inferior to fine crystallized 3½ a 9 in.	8s a 31s
VERMILION	Fine, pure, bright	2s 8d a 2s 9d

THE AGRICULTURAL MAGAZINE, COLOMBO.

Added as a Supplement Monthly to the "TROPICAL AGRICULTURIST."

The following pages include the Contents of the *Agricultural Magazine* for July :—

Vol. VIII.] JULY, 1896. [No. 1.

OURSELVES.

THE present issue opens the VIIIth volume of our Magazine, the first number of which was issued at the beginning of July 1889, from which date the Agricultural Magazine has continued to appear monthly before the public without intermission. Since then also changes both as regards the quantity and quality of the contents have taken place, and we trust that such changes have always been improvements. The interests which the conductors of the Journal have at heart are embodied in the announcement which usually accompanies the advertisement of the Magazine, viz., "the developement of Eastern Agriculture; the introduction of improved methods of culture, seeds, plants, implements of husbandry and dairy apparatus; while we also make it a point to record information of local interest, referring to crops and stock."

Indeed, we have even gone further and treated of other subjects in our endeavour to make the Magazine as interesting and entertaining as well as useful to our readers. We take this opportunity of thanking our contributors and subscribers for their help in maintaining the Magazine, and the Press for its patronage.

SEASON REPORTS.

WESTERN PROVINCE.—Yala cultivation nearly completed. Fruit and vegetables plentiful, except in the Negombo district where it is reported to be scarce.

CENTRAL PROVINCE.—Maha harvesting nearly over and Yala cultivation proceeding. Supply of vegetables good. *Stock.*—Foot and mouth disease prevailing in Walapane.

NORTHERN PROVINCE.—Paddy lands being manured and ploughed, outturn of dry grain not satisfactory for want of rain. Tobacco crop harvested and a failure in quality reported. *Stock.*—Cattle plagues reported in Vavonia and Mullaittivu districts.

SOUTHERN PROVINCE.—Maha crops reaped and thrashed in Hambantota district, yala cultivation proceeding. Vegetables and fruits abundant. There is scarcity in East Giruwa Pattu, where the usual food supply has failed, villagers eking out an existence on jak fruit.

EASTERN PROVINCE.—Paddy fair, but is likely to be damaged by blight. Vegetable products getting rare for want of rain.

NORTH-WESTERN PROVINCE.—*Puttalam.* Yala cultivation has been retarded owing to want of rain. Fine grain crops too have failed. *Chilaw.*—Yala sowing has failed in some places for want of rain.

NORTH-CENTRAL PROVINCE.—Maha crops reaped, yala cultivation proceeding. *Stock.*—Cattle plague still prevailing.

UVA.—Paddy crops thriving and prospects good. Fruits and vegetables scarce. *Stock.*—Foot and mouth disease prevalent among cattle in Gampola.

SABARAGAMUWA.—Yala cultivation in progress, prospects generally good. *Stock.*—Cattle plague

and foot and mouth disease reported from Kegalle district.

N.-W. PROVINCE.—*Kurunegala District.* Paddy—ploughing and sowing. Want of rain retarding operations in Wanni Hatpattu, and this cause is interfering with crop prospects in many places. *Stock.*—Health fair, except in Katugampola and Dambadeni, where cases of murrain are reported.

RAINFALL TAKEN AT THE SCHOOL OF AGRICULTURE DURING THE MONTH OF JUNE, 1896.

1	Monday ..	Nil	19	Friday ..	Nil
2	Tuesday ..	·45	20	Saturday ..	Nil
3	Wednesday ..	·17	21	Sunday ..	Nil
4	Thursday ..	·35	22	Monday ..	·11
5	Friday ..	1·77	23	Tuesday ..	1·89
6	Saturday ..	1·01	24	Wednesday ..	·38
7	Sunday ..	Nil	25	Thursday ..	Nil
8	Monday ..	·05	26	Friday ..	·18
9	Tuesday ..	Nil	27	Saturday ..	Nil
10	Wednesday ..	Nil	28	Sunday ..	Nil
11	Thursday ..	Nil	29	Monday ..	·03
12	Friday ..	·10	30	Tuesday ..	Nil
13	Saturday ..	3·22	1	Wednesday ..	·02
14	Sunday ..	1·08			
15	Monday ..	·13		Total ..	11·32
16	Tuesday ..	·25		Mean ..	·37
17	Wednesday ..	·13			
18	Thursday ..	Nil			

Greatest amount of rainfall in any 24 hours on the 13th June, 3·22 inches.

Recorded by M. W. K. BANDARA.

OCCASIONAL NOTES.

In our next issue an interesting paper by Mr. G. W. Sturgess, Colonial Veteinary Surgeon will be commenced; the articles on Fruit Culture by M. Zanetti, and on Forest Law by the Law Lecturer in the Forestry School will be continued; while we also hope to publish a communication from Professor Wallace.

We would draw special attention to "Facts and Figures *re* Coconut Cultivation," containing interesting and reliable information on the subject of coconuts and the products of the palm generally. When we published the letter of "Cocopalmist" we anticipated that there would be some discussion over his contribution, and if our correspondent's estimates were rather wide, he will have done good service to the cause of coconut cultivation if his letter leads to the question of estimates in connection therewith being fully threshed out, by calling forth more valuable, because more accurate, information with reference to coconut planting, which is beginning to be looked up—to judge from the present tendency in planting affairs—as our safest and most stable agricultural enterprize.

The uncertain weather which characterised the advent of the S.W. Monsoon rather interfered with calculations for the pruning of the grape vines at the School of Agriculture, as it no doubt also put out the calculations of most persons engaged in agricultural pursuits. After mature consideration, however, M. Zanetti decided on doing the pruning on the 31st April, on which date the vineyard was operated on, and the whole area pruned within half a day with the help of some of the students, to whom the work has proved a valuable lesson.

M. Zanetti's contribution on pruning will, we anticipate, be much appreciated by many, who for want of a proper knowledge of the principles which guide this important process—the value of which is practically unknown to the native cultivator—have carried on their fruit culture at a great disadvantage. We trust M. Zanetti will continue to favour us with further contributions with reference to what is a much neglected industry in Ceylon, and about which, from his long practical experience with cultivation of fruit trees, our correspondent is ably qualified to write.

Mr. D. Chinniah, a successful student of the School of Agriculture, has been awarded the Ceylon Government Scholarship for the study of veterinary sceince in India, and left for Bombay, to join the Veterinary College there on the 20th May. Mr. Chinniah showed special aptitude for veterinary work, and we shall expect, as we hope, that he will go through his course of veterinary studies with much credit. The policy of Government in training up natives to the veterinary profession, so as to reach the masses in Ceylon through their own countrymen, is a most commendable one.

A correspondent desires to be informed whether there is any known and reliable method of judging of the age of trees, "such as ordinary timber trees or coconut trees." He refers to the method of fixing the age of trees in England by the annual rings in the wood of the stem, and asks if this is a reliable way, and whether there are any analogous indications of age in forest-trees in the East. The question is one which is for the Forester to deal with, and rather than reply to our correspondent ourselves, we would bespeak the aid of some one versed in the Science of Forestry, and therefore more qualified than ourselves to supply the information asked for.

We have been applied to for some definite information regarding the quantity of milk required to make a pound of butter. We hope to be able to deal fully with the subject in our next issue.

FACTS AND FIGURES *RE* COCONUT CULTIVATION.

A correspondent writes to us with reference to "Cocopalmist's" facts and figures regarding coconut cultivation: "I note on pages 111 and 112 of your current number, figures concerning the weight of coconut products. The information is not valuable, because it only deals in outside estimates, and the range quoted is almost ridiculously great. If your informant will quote average yields and weights, his figures will be of value to us." Our correspondent who states that he himself has collected much valuable information on the same subject from time to time, refers us to pages 44-46 of Sessional Paper XII. 1895. This official document is the second report of the Commissioners

(Messrs. Allanson Bailey, W. E. Davidson, A. C. Kingsford, and H. V. Lushington) appointed by the Governor to report on the proposal to extend the railway into the Kelani Valley. Among the Appendices we find much useful information on the subject of coconuts. We quote as follows: "As regards the yield a table is inserted here collating the leading authorities in Ceylon on this point. From it may be deduced the fact that the scientifically cultivated estates in Siyane Korale would yield not less than an average of 40 nuts per tree or 3,000 nuts per acre." There are some no doubt who will object to the authorities mentioned in the annexed table being called "leading authorities" when the names of such well-known planters as Messrs. Wright, Jardine, de Mell, Schrader &c. are left out; but the value of the figures is by no means diminished on that account. The information which follows is culled both from the Sessional Paper referred to, and also from the notes of the correspondent who was kind enough to draw our atention to the official publication.

AUTHORITY.	Acres under Coconuts.	Trees in millions.	Nuts in millions.	Trees per acre.	Nuts per acre.	Nuts per tree.
1. Over the whole Island:—						
(*a*) Blue Book 1892	766,000	61	1390 } circa	80	1820	22·8
(*b*) Ferguson's Directory 1893	650,000	50	1490 }	77	2300	29·8
2. In the Western Province:—						
Blue Book 1892	354,970	26½	589	75	1688	22·5
3. In the Kegalle district	19,539	1⅓	45¼	75	2361	31·5
4. Ferguson's estimate of yield:—						
(*a*) On highly cultivated plantations ...	...	...	...	80	3200	40
(*b*) On native gardens	...	...	...	70	1400	20
5. The Hon. P. Coomaraswamy on his properties in Negombo and Chilaw districts ...	...	...	...	75	4500	60
6. A. de Rowel Mudaliyar in Pitigal Korale, South						
(*a*) For plantations	...	...	...	80	2000	25
(*b*) ,, native gardens	...	...	...	80	2400	30
7. Meedeniya R. M.'s. estimate for three Korales	...	...	...	75	2250	30
8. Mr. F. Beven's estimate:—						
(*a*) Average for well cultivated properties	...	...	...	80	3200	37·5
(*b*) All round average for the whole Island	...	...	...	80	2000	25

The following notes compiled from various sources and specially checked by Mr. F. Beven, of Franklands, Veyangoda, give full particulars as to the weight of the various products:—

(1) *Oil.*—40 nuts yield 1 gall. of oil, value R1 to R1·25.

500 ,, or 12½ ,, = 1 cwt. value R15 to R16·50.

One acre at 3,000 nuts given 6 cwt. oil, value R99.

Note.—The number of nuts per gall. of oil varies in different districts from 30 to 45. Mr. Beven quotes 36 nuts as a fair average.

(2) *Poonac.*—The oil ought to be ⅔ of the original weight; poonac ⅓. If an acre yields 6 cwt. oil, it ought to yield also 3 cwt. poonac.

Poonac varies immensely in price according to its quality. Perhaps R2·50 per cwt. is a fair price. Thus an acre which yields 6 cwt. of oil for R99 and 3 cwt. poonac at R2·50, gives a gross return of R106·50 exclusive of the value of husks.

(3) *Copra* is sold by the candy or param which = 5 cwt. or 560 lb. It is generally reckoned that 1000 nuts yield a candy of copra. (It varies from 900 in the Chilaw district to as much as 1500 elsewhere). The usual calculation is that 2 nuts = 1 lb. copra. A fairly good estate with a yield of 300 nuts per acre would give 15 cwt. of copra, or at R46 per candy, a gross return per acre of R138.

(4) *Coconuts.*—A green coconut with husk on weighs 4 lb.; if dried it weighs 2½ to 3 lb.; if dried and husked 2 lb. The yield by weight of an estate givs 3000 nuts per acre is over 2½ tons. Mr. H. L. Daniel, who is said to be the first coconut planter who kept statistical records of the yield of coconut properties gives the following:—

Estimates:

Coconuts:	Nuts per tree.
Chilaw district	60, 70, 80
Negombo ,,	50, 60
Maha-oya ,,	50, 60
Siyane Korale East	35
Hewagam, Salpiti and Rayigam Korale	25 to 30

[N.B.—Good cultivation will yield even in Hewagam Korale 45 to 50.]

Copra:

900 nuts for a candy	is the best result.
1000 ,, ,, ,,	is a high return.
1200 ,, ,, ,,	is a fair average.
1500 ,, ,, ,,	is the result with heavy bearing trees.

Nuts yield in chekku mills ⅔ oil to ⅓ poonac. Theoretically, coconut trees are planted 25' × 25', or 75 trees to the acre, but 70 is a high average. Native gardens may be more thickly planted, but the yield is more than correspondingly less. A fair average for old estates is 60 trees. New estates, without vacancies average 70 trees.

The average weight of copra of an average acre in Siyane Korale would be not less than 7½ cwt.

THE PRESERVING OF FRUIT.

(*Continued.*)

Fruit preserved in the manner already described will keep for years. In cans the fruit will keep in almost any position and regardless of temperature, but in glass jars the case is somewhat different. Light promotes chemical action, and hence fruit in glass jars must either be stored in a cool underground room, or a cheap substitute and safe receptacle may be easily made by sinking a common box, of sufficient size in some out of the way corner under the house. Absence of light and a uniform, if not very low, temperature will keep all canned goods safe. To be sure, however, the glass jars should be wrapped with paper to exclude the light.

There is another way of preserving fruit which might be referred to in closing this paper, viz., by drying. The practice of preserving fruit by drying in the sun is very old. Of late in America, and to some extent in Europe, this primitive practice has given place to canning and the better method of drying; but even yet in parts of Europe and the East the sun drying of fruits is a common employment. Figs, dates, raisins, currants and prunes are to a very large extent dried by this original method. Not long ago in Australia apples, peaches, pears &c., were pared and dried on house-tops or upon elevated platforms on crates or racks. In thus drying apples, for instance, the fruits were pared, cored and quartered and then placed on tables and drying boards tilted up so as to get the greatest sun exposure. Often the fruits were strung on strings, and hung on festoons near the ceiling over the kitchen fire—a practice not to be commended for obviour reasons. Later on, fruits came to be dried over stoves variously designed. A common but really efficient form of these primitive driers is thus described by an American writer: "It was composed of three things, viz., a hogshead, a tin box and a small stove. The hogshead stood on end and half a door sawed out of the side to admit the stove; a hole 18 inches square was sawed in the head of the hogshead to let the heat of the stove up, and a six or seven foot box, having the lower end knocked out, stood on end in the top of the hogshead, and was carefully fitted over the hole in the head of the hogshead. The heat ascended from the stove through the top of the hogshead and on through the box. A pipe hole was made in the hogshead opposite the door to let the smoke out, so that none ascended through the box. The lid of the box was fitted with hinges, and cleats or supports were put in on which to rest the open shelves or crates which held the fruit. The stove was heated by wood or coal. Some such simple contrivance as the above might be made by any one capable of using a saw and hammer, and enable him to dispose of fruit when available in a convenient and palatable form.

Practically all fruits are suitable for canning, and more, may be preserved by drying, and a large variety of vegetables, such as potatoes, pumpkins, tomatoes, carrots, beans, peas, Indian corn, &c. Fruits that are generally peeled before cooking must be pared before evaporating, and all must be sufficiently divided to make rapid and thorough drying possible. The point to be arrived at in evaporating is to secure thorough and not too rapid drying. If too great or too dry heat is employed the fruit is partly cooked, or else evaporated so rapidly that the fruit cells are ruptured and a flavourless insipid article is the result. The temperature of the air nearest the source of heat must not be above 200° F., but for drying the more delicate fruits and vegetables this temperature is somewhat too high. To modify the influence of heated dry air it is the practice to introduce into the evaporator shallow vessels filled with water, placing them where the heat is greatest and driest, near the stove or other heater employed.

PRUNING.

[I send you a few notes on pruning, which I shall be very thankful if you will publish, my object being to try and remove some prejudices against the operation and acquaint fruit growers with some of the mistakes made by them in their system of fruit growing in the Island. A little personal experience following upon the lessons of illustrious authors on agricultural science, such as Boussingault, Liebig, Ville, Wagner and others has aided me in this attempt, so that if your readers find my notes of any value at all, let them render their thanks to those high authorities and be thankful only to them.]

The pruning of fruit trees is the most important part of fruit culture when we want to obtain a proper and well-matured crop. I have seen very little done in this line in Ceylon by a few amateur growers, and nothing at all by the natives who, on the contrary, dare not cut a single sucker off a tree fearing they might injure it. Plenty of wood, little fruit, and that sour, are the results of this treatment. If oranges are cultivated properly, there is nothing in this island to prevent the trees giving us fruit as good as is obtained in other countries. I am not blaming the poor villager for leaving his fruit trees to grow wild, and so lose the chance that nature, assisted by a little care and labor, offers him. If he does not know any better, is he to be left in his ignorance for ever? And is it not the duty of somebody to begin to show him his errors, and so encourage him towards earning an honest and remunerative livelihood, and thus render his life more useful and happier than it is today?

I will not say that by pruning old trees we will obtain at once good fruit (as no grafting has ever been attempted but all trees grown from seedlings, generation after generation, a good fruit cannot easily be obtained) but by taking one of these trees thoroughly in hand and letting it undergo rational pruning, the improvement in crop and quality must follow. By suppressing a useless branch the sap which went to support it will go to the benefit of those remaining, and their buds being well nourished will soon bring forth the healthy shoot which in time will carry blossom and fruit.

I consider the very last days of drought the best time for pruning here; at this period there being practically a cessation of growth, the plant will be saved from the shock of heavy pruning.

The tree must be trained from the very first to a single stem, and preference always given to the healthiest and straightest. This attention paid to a young tree will make it grow fast and vigorously, and there will be no harm in allowing it its own way till it reaches its third year of existence, when we will have to prune it so as to give it a uniform appearance. The vigour of a tree depends mostly on the equal distribution of sap to all its branches. If a branch does not receive a full and regular flow of sap, it becomes weak and bears but poor fruit which will never attain proper maturity. It is hence necessary if we want to secure for our trees both symmetrical form and vigorous health to prune so as to maintain an equally distributed flow of sap through all primary branches. The way to bring about this equalized flow consists in cutting little or nothing off the weak branch but shortening the strong branch

to the height of the weak, taking care to cut short at laterals.

The durability and vigour of a tree depends a good deal on the relation of the branch system to the root system—the growth above ground to the growth below ground. This is why in transplanting any sort of tree we must cut its branches proportionally to the roots, the same as when a tree is affected by root disease or when very old.

The sap is always inclined to run from the roots to the branches as vertically as possible, so that it is found to be more copious in vertical than in lateral branches, and this is the reason why long vertical branches should be shortened to the height of the rest.

It would break the heart of a native to see about ten feet of a fine long branch ruthlessly cut off while endeavouring to emulate the neighbouring coconut tree (not seldom too neighbourly). In view of the native's prejudice to pruning I might give this advice: when a branch of an orange tree is too vigorous in growth, and therefore little productive of fruit, in order to stop its growth, it can be arched or bent. Again, a bent and feebie branch can be rendered vigorous if straightened. The sap in a short-cut branch, or in one that has been bent, will bring forth healthier buds than it would if the branch when cut is still fairly long or is left straight. This fact is easy of comprehension—the sap having to nourish a few buds only will be more abundant and the few buds will bring forth shoots much stronger than those produced by fifty or sixty.

We should never prune for fruit only, but try and prepare our wood for the next year also. Practice only will teach the pruner to distinguish between a branch carrying shoots with buds for fruit, and another for wood, the principal rule to follow being that the same shoot which has given us fruit this year will not do so next year unless a secondary one is formed during the fruiting season.

If a tree has been exhausted by a heavy crop it is advisable to prune it very short for two years, not for fruit but for wood. By this means it will obtain a sufficient quantity of new wood to revive the circulation of sap and so re-establish the needed equilibrium for the production of fruit. The sap being always inclined to ascend to the extremities of the branches will develop the upper buds with greater vigour than those in the middle or at the bottom. This should always be taken note of when we are pruning young trees and want to obtain elongation of the other branches. In cutting a long branch short, the cut should always be made about half an inch above the healthiest bud or shoot.

There is a good deal to be said yet, but I do not wish to take up too much of your valuable space at once, and will leave it for another issue whenever space should be available.

C. ZANETTI.

HOUSEHOLD HINTS.

PEANUTS FOR CONSUMPTION.—Dr. Brewer in the Journal of Hygiene has a new idea concerning od for consumptives. His treatment consists inhaling the fumes of vinegar and eating of peanuts or groundnuts. He gives his patients as many peanuts as they can eat without injuring their digestive organs. Two young ladies who had been the rounds of the doctors and had taken cod liver oil and tonics till they were nearly dead, were put on his treatment and recovered. Concerning these cases Dr. Brewer says: I now recommend feeding (do not laugh) peanuts. One would think this a very indigestible diet, but they craved them, and it has always been my policy to find out what my patients desire to eat, and unless it is too unreasonable I humor them. Both young women have become quite plump, and after a year's inhalation have ceased coughing and I pronounced them well. The peanut was long known as an excellent fat producer, and much more agreeable than cod liver oil. While not all can digest peanuts, a great many even with feeble digestion eat them without discomfort. It beats the Koch lymph and it is the most satisfactory treatment I have ever tried for these diseases.

Science to-day tells us that we may live under the most beautiful conditions; we may feast on bread, meat, eggs, rice, cocoa, oatmeal and such like foods for a short time, but unless we take fruits or fresh vegetables—fruits being the best—we shall get listless, with leaden face, etc., until we die in a few months at the longest; and it follows that if we would keep ourselves and our children with clear skin, bright intellects, good digestion, rich-colored healthy blood and strength for work, we must regularly take fruit and vegetables, and look upon them as actually more necessary for the support of good health than any other article of diet.

To clean black cashmeres and merinos, first well brush and remove all dust, wash very quickly in warm water in which soap has been lathered. A good quantity of ammonia should be put into the water; there should be as little rubbing as possible; the rinsing should be done in blued water, containing a handful of salt. Soap should never be rubbed on.

To destroy insects and vermin dissolve 2 lb. of alum in three quarts of water; let it remain till the alum is dissolved, then with a brush apply boiling hot to every joint and crevice in the place where bugs, earwigs or other insects infest; brush all the joints and crevices of bedsteads; keep it boiling whilst using; a strong boiling-hot tea of cayenne, used with a brush, is also a capital remedy.

Cut flowers will keep fresh if a small pinch of saltpetre is put in the water. The ends of the stems should be cut off a little every day to keep open the absorbing pores.

Paint can be removed from glass by rubbing it with hot strong vinegar. Stains on hands can be removed by acetic acid or salts of lemon, and ink-marks will soon yield to pumicestone.

SAND TARTS.—A cup of sugar, half a cup of butter, a cup and a half of flour and an egg. Roll out thin. Cut in rounds. Spread the top with the white of an egg, sprinkle with cinnamon and sugar. Bake in a quick oven.

A good complexion never goes with a bad diet. Strong coffee, hot bread and butter, heated grease, highly spiced soups, meats or game, hot drinks, alcoholic liquors, fat meats, are all damaging to its beauty.

———

Salt preserves the teeth, keeping them white, the gums healthy, and the breath sweet. Put some in an iron shovel, place it over the fire and when quite hot pour into a thin bag. Apply to any part affected with neuralgia or intense pain.

———

To remove mildew from linen: First of all, take some soap and rub it well into the linen, then scrape some chalk very finely and rub that in also, lay the linen on the grass, and as it dries wet it again. This done twice or thrice should remove the mildew stains. Another way is to mix soft soap and powdered starch with half the quantity of salt and juice of a lemon. Lay this mixture on with a brush, and let the linen lie out on the grass for a few nights and the stains will disappear.

———

Paint stains may be eradicated from white or coloured cotton or woollen goods by rubbing with oil of turpentine, or benzine, followed by soapsuds. For stains of paint on silk, apply benzine or ether, but avoid hard rubbing. Equal parts of ammonia and turpentine well mixed, and the spots saturated with it, is also an excellent way of taking out paint stains. Wherever possible afterwards wash the mark with soap and water.

———

Dissolve a teaspoonful of alum in a quart of water. When cold, stir in as much flour as will give it the consistency of thick cream, being particular to beat up all the lumps; stir in as much powdered resin as will lie on a sixpence, and throw in half-a-dozen cloves to give it a pleasant odour. Have on the fire a teacup of boiling water, and pour the flour mixture into it, stirring well at the time. In a very few minutes it will be of the consistency of mush; let it cool; lay on a cover and put in a cool place. When needed for use take out a portion and soften it with warm water. Paste thus made will last 12 months. It is better than gum, as it does not gloss the paper and can be written on.

THE NUTRITIVE PROCESS IN PLANTS.

Prof. J. Reynolds Green, D.Sc., F.R.S.

(Continued.)

We find specially occurring in the cell, when it is at the height of its activity, representatives of two great classes of bodies, carbohydrates and proteids, the former consisting only of carbon hydrogen, and oxygen: the latter containing nitrogen as well, with sulphur and possibly phosphorus. The former seem to be found independently; in the construction of the latter possibly carbohydrates are involved.

The absorption of carbon-dioxide by the cells of the leaf during sunlight is associated at once with the coincident liberation of oxygen. The amount of the latter given of is the same in quantity as that of the former taken in. The first application of the energy of absorbed light is thus to the decomposition of the carbon dioxide. It is considered that this splitting up of the latter very intractable body is responsible for half the oxygen evolved, carbon monoxide and oxygen being formed according to the equation

$$2\ CO_2 = 2\ CO + O_2$$

Side by side with this decomposition there is the splitting up of some of the water in the cell thus:

$$2\ H_2O = 2\ H_2 + O_2$$

The two molecules of oxygen are given off and the two residues, the carbonic monoxide and the hydrogen combine to produce a body known as formaldehyde, &c. Further complex processes supervine, the formaldehyde being very speedily replaced by a sugar.

At this stage we have reached a material which is directly serviceable as a food-stuff both to animal and vegetable protoplasm. Whatever be the form of sugar thus formed—whether cane sugar as now appears probable, or some other kind—we have the construction, from simple inorganic substances, carbon dioxide and water, by a series of very intricate chemical processes, carried out by the protoplasm under the conditions above noted, of such complex organic material as will serve for the nourishment of the plant.

Similarly we may trace with more or less success the formation of proteid material. It takes place probably in the same cells under the same influences, though from different materials, and by very different steps. Chlorophyll does not seem to be directly necessary for the process, but most likely carbohydrate matter takes a part in the construction, possibly being combined with peculiar nitrogenous crystalline bodies known as amides, which are in their turn constructed from the simpler compounds of nitrogen taken in from the soil. Chlorophyll is thus concerned, though indirectly, in the production of protieds in the green plant.

Both sugar and proteid material are available for the nutrition of the cells in which they are formed, and if constructive ability is not very great, as when light is dull or temperature low, probably they are at once used up. But it is different when the plant is well illuminated; then construction is active, and a large quantity of both classes of material is made, far indeed beyond immediate requirements. The form of the leaf and the peculiarity of behaviour both of stem and leaf, go to show that construction beyond such requirements is distinctly advantageous. The substances of the leaf is very small in comparison with its surface; its cells are so arranged as to secure the greatest possible amount of light; and its position is definitely taken up so as to place its upper surface at right angles to the incident rays.

The first sign of this excess of activity over consumption is to be found in the appearance of small grains of starch in the cells of the leaves. It is important to note that the stable body, starch is not the form of carbohydrate on which protoplasm can feed. Whenever starch is to be used for nutritive purposes, whether by animal or by plant, it has to undergo a conversion into sugar. The starch thus appearing in the leaf is then the first indication of the process of storage of reserve materials. True it does not persist long in the leaf. Formed during the day, it is removed

during the night, and stored again elsewhere. We may wonder, perhaps, that the plant should turn its carbohydrates into starch for such a short space of time; possibly the excess of sugar tends to render the protoplasm incapable of discharging its functions, and so the surplus is withdrawn from the active life of the cell, being laid down in insoluble form. Its deposition in quantity can readily be seen by a very simple experiment. If a leaf be taken from a tree during the hours of bright sunshine, killed and bleached by warming in strong alcohol, and then immersed in an alcoholic solution of iodine, it turns a deep blue colour wherever the light has had access to it, owing to the formation of the blue iodide of starch.

The disappearance of starch during darkness can be similarly demonstrated, another similar leaf being selected from the same plant, and gathered in the early morning, or after a period of imprisonment in a dark room. The iodine treatment does not then colour the leaf blue, indicating the absence, or rather removal, of the starch which the first experiment has shown to be present in the leaves during and after immediately their illumination.

The starch is manufactured at the expense of the sugar, as we have seen. It is in the form of grains of definite shape, which are built up by the chloroplastid, and occupy a definite place in relation to the latter. The shape it takes being that of a very small granule, its position is in the interior of the chloroplastid. Often two or three are formed inside the same plastid. They can be detected by a high power of the microscope, after bleaching the leaf and staining it with iodine.

They never attain a large size, and never have the complex structure which starch grains attain in reservoirs which retain them for a long time, such as the cells of the potato tuber.

The formation of the starch granule in the interior of plastid is due, then, not to the chlorophyl but to the protoplasm of the chlorophyl grain. The latter converts the sugar which has been formed into starch, by a process closely resembling, if not identical with, true secretion such as we find taking place in an animal's gland.

GENERAL ITEMS.

The Colonial Veterinary Surgeon of Cape Colony replies to a correspondent who asks where the gall-bladder of the horse is situated, that the horse, like the ostrich and some antelopes, has not got one. The idea that a horse's gall-bladder is somewhere in the region of his head arises from the fact that it is not to be found about the liver, and also that when a horse is dying from the pulmonary form of horse-sickness a quantity of a pale yellowlooking fluid, resembling frothy beer, flows freely from his nostrils, the origin of which many people attribute to the gall-bladder having burst in his head.

A successful remedy against red spider is to syringe the trees thoroughly with sulphur and soapy water. This is to be left on for about four days and then syringed off with clear water.

The Sydney *Stock and Station* says that the Chief Inspector, Mr. Gordon. "has under consideration the matter of constructing dips at certain points in the proclaimed southern line of quarantine. These dips will be constructed on the American principle and will be 10 ft. deep and cemented. The cattle will be driven into them through a narrow lane and will come out into a cement-floored draining yard, where the dip will drain back off the beast into the tank.

"With reference to the dip to be used in the troughs, Mr. Gordon states that only two have been found to be efficacious and then only at great strength. Common sulphate of iron has been found very efficacious, however, at a strength of about half-a-pound to the gallon of water. If the ticks which this solution does not actually kill drop any eggs after the immersion the eggs are found to be infertile.

"Mr. D. Miller has been successfully treating the bullocks in his paddock that were infested with ticks. The cattle, eighteen in number, were dressed with a preparation consisting of eight gallons of tallow, five gallons of oil, half gallon of Stockholm tar, and half gallon of paraffine. These ingredients were mixed and heated to boiling point, and the mixture was applied while warm. The cattle were put through a crush; the liquid being applied with tar brushes and two brooms. There were a number of interested people present, including Mr. A. Brook, stock inspector. The solution proved most deadly to the insects, as several of them were taken from the cattle and a drop poured on them, and in all cases they did not live three minutes afterwards. After the cattle had been thoroughly saturated they were turned back into the paddock, and on examination four days later were found to be perfectly free from ticks."

A correspondent of the *Australasian* writes:—"On stations and farms in many parts of the colonies and more particularly in the hot back country it is difilult to keep cream sweet or to make good butter, where it is required for home use in small quantities through the summer. Being confronted with this difficulty many years ago it occurred to me that the method so common of keeping water cool in canvas water-bags by hanging them in a draught, and securing the cooling effect of rapid evaportion, might be applied to cream and to the making of butter. After some experiments I found that by taking a piece of common sheeting calico, putting it over a bucket and pouring the cream into it each morning, then taking up the ends and tying a string round it and hanging under a verandah, the cream is kept cool and sweet, and after hanging so for twenty-four hours it can be taken out, and by stirring a few minutes with a spoon it may be converted into the best butter. The cream does not pass through the calico, but the water does, and produces the same cooling effect as is produced by the canvas water-bags so commonly used; and as in the course of 24 hours nearly all the water which the cream contains is filtered out, with some of the buttermilk, there is never any difficulty about getting the butter, and the flavour is perfect. One of the principal advantages is that even a pound of cream can be kept, and easily converted into butter without any labour and with no failures. I have had this method in use now for a great many years, where only a few cows are milked for home use, and as

I think it may prove a boon to many of your readers in the warm parts of all the colonies I send it for your columns. It may be capable of application on a larger scale, but I have only used it with small quantities of cream. The principle is so easily understood by anyone who has used the canvas water-bag (and who has not), that there is not much likelihood of mistakes being made."

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Referring to the above method of preserving cream, the *Agricultural Journal* of the Cape observes that it is on much the same principle as that for making so-called "fairy butter," which is done by tying up cream in a cloth and burying it in the ground. Though this way of butter-making was an Old World trick, yet a few years ago a patent was taken out in America, and it was proposed to adopt the plan on a large scale.

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A potash manure largely used in agricultural districts is seaweed. In a fresh condition this manure may be described as containing about 3 per cent. of potash, and about half that amount of nitrogen, with a fraction of a per cent. of phosphates. Its manurial action and value are generally reckoned as similar to that of farmyard manure; but this is perhaps hardly correct. It, however, is a valuable manure.—*Australasian.*

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It had been admitted for a long time past that the researches and conclusions of Lawes, Gilbert, and Pugh into the nitro-collecting habit of leguminous plants were fully borne out by experience, but it remained for the German scientists to show that the bacteria affecting the nodules on the roots of clovers, peas, &c., may with beneficial results be introduced into a field of leguminous plants where they are comparatively deficient. It is something like adding yeast to liquor—the fermentation is promoted. In any field where legumes have not been grown for some years it may be presumed that the bacteria are not very abundant, but this defect may be remedied by sprinkling the field with some soil taken from a field where legumes have recently been grown, and the result will be that a large quantity of nitrogenous matter will be produced by the roots of the plants grown—or, rather, by the bacteria which are associated with the roots of the plants. In some cases, the farmers have sown some kind of leguminous plant along with a cereal crop, and then sprinkled the field with about a ton to the acre of soil taken from a field in which a leguminous crop had been grown. The result showed that the field was very much richer in nitrogen than before, and crops requiring nitrogen, and sown afterwards, were much benefited. Indian farmers grow Black Medick (*Medicago lupulina*) amongst their wheat crops, and it is said they never have occasion to apply nitrogenous manures to their fields. It is also said that the Medick does not depreciate the yield of wheat. These are matters that are worthy of further enquiry.—*Melbourne Leader.*

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The mystery of nitrification is now so well known that any farmer can understand it. Plants thrive on nitrogenous food but apparently have no power to take it either from the air or the soil. Here the nitrogen-bacteria get in their work. These microbes, like atomic sponges, take in the nitrogen from the soil and the air, and transform it into nitric acid, in which form the plant can consume it. A soil may be destitute of nitrogen and need both that and the microbes, or it may lack only the microbes, in which case a supply of them renders the field immediately fertile. Stable manure has little nitrogen but swarms with the germs of microbes. Add to a field where clover seed won't "catch," a light dressing of soil from a plot where clover thrives to perfection, and a catch of clover seed is almost sure to result. Why? Because the soil added is full of the germs or microbes that enable the young clover plant to avail itself of the nitrogen in ground or air.—*American Agriculturist.*